RCMA
NEWSLETTER
APRIL 1990

Photo by Jeff Ketell (MA–130)

FIRST NATIONAL AND INTERNATIONAL ORGANIZATION
OF MONITOR RADIO LISTENERS

ASSOCIATION OF NORTH AMERICAN RADIO CLUBS
ANARC

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RCMA NEWSLETTER

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P. O. Box 542
Silverado, CA 92676

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961 Azalea Street
Boca Raton, FL 33846

FOR YOUR INFORMATION:

1. Input to the RCMA Newsletter should be mailed to the proper editors, whose addresses are included in the individual column heads. If no particular column seems appropriate, send to RCMA General Manager, P. O. Box 542, Silverado, CA 92676.

2. To forward a letter to a specific RCMA member whose address you do not know, put your message to that person in a stamped envelope with your return address; mail to RCMA General Manager, P. O. Box 542, Silverado, CA 92676.

3. PLEASE INCLUDE YOUR MEMBERSHIP NUMBER WITH ALL CORRESPONDENCE to newsletter editors or club headquarters.

4. If you require a reply when writing to newsletter editors, please include a self-addressed, stamped envelope.

5. Please don't combine in one letter several items that should go to different addresses. Be sure to write on one side only of your paper.

6. If you want to type or word process information you are submitting for publication, you MUST do the following:
   a. make your written line length 7 inches
   b. single space your copy
   c. make your frequency lists single column
   d. do not skip more than one line between topics or paragraphs
   e. do not use an *italic typeface*

7. Your RCMA membership number and expiration date appear on your mailing label.

8. You may join or renew your membership for only ONE year at a time.

9. RCMA accepts paid advertising. For information on rates and mechanical requirements, contact Carol Ruth, RCMA Advertising Manager, P. O. Box 542, Silverado, CA 92676.

The RCMA Board of Directors supports the policy of not printing certain federal law enforcement frequencies, e.g., Secret Service, FBI, Customs, DEA. Agreement with this policy has been reinforced by a membership survey.

RCMA Newsletter

Issue 171 April 1990

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CONTACTING RCMA?

For membership applications or renewals, address changes, inquiries about delivery or renewal problems, write to:

RCMA General Manager, P.O. Box 542, Silverado, CA 92676

Have a comment about RCMA club policy or newsletter content? Write to:

William Mauldin, RCMA General Editor, 961 Azalea Street, Boca Raton, FL 33486

Want a letter published in *Your Thoughts* column? Write to:

RCMA General Manager, P.O. Box 542, Silverado, CA 92676

Correspondence sent to RCMA's Anaheim P.O. Box will still be answered, but there will be a 4–6 week delay.

April cover photo: A Quincy, Massachusetts deputy chief using 483 MHz at a lightning–caused church fire.

Photo by Jeff Ketell (MA–130)

Also, sincere apologies to Carl Gerosa (NY–117) for not giving him his photo credit on the March cover!

The RCMA Newsletter is published by members of the RADIO COMMUNICATIONS MONITORING ASSOCIATION, Inc., P.O. Box 4563, Anaheim, CA 92803. Membership dues are $18.50 for U.S. residents. For persons in other countries, the following rates apply: Canada and Mexico—$22.50; Europe—$22.50; South Pacific and Asia—$22.50. These dues are payable in U.S. funds and are subject to change. Information contained herein is obtained primarily from members and does not necessarily present the position or reflect the opinion of RCMA as a whole. RCMA, Inc. does not necessarily recommend or endorse products or services advertised herein. The publication is copyrighted©. Reproduction of any material in this newsletter is prohibited without prior written consent.

RCMA STATE ASSOCIATE EDITORS

RCMA State Associate Editors are your in-state club representatives. The job of the Associate Editor is to collect information within his state, then verify and combine the material with other contributions from your area. Once a month, the Associate Editor forwards ALL information received to the designated column Staff Editor. The Staff Editor writes the monthly column you read in the NEWSLETTER.

If your state has an Associate Editor, send your contributions and questions to him. He is best equipped to deal with matters within his area, and can probably answer questions of a local nature. Write to him first and BE SURE TO INCLUDE AN SASE.

If your state is not listed (except for California), the position is open for assignment. If you would like to be considered for the volunteer job, send a stamped, self-addressed envelope for an application. Your active, monthly participation is required and expected if you are selected as state Associate Editor.

In addition to a lot of satisfaction in being the RCMA Associate Editor representative for your state, you also receive a **50% discount on yearly dues and your newsletters mailed 1st class.** We are looking for workers, not information collectors. If you are serious about RCMA, consider being an Associate Editor! Typewriters and computer printers are NOT required for Associate Editor assignments.

Associate Editor Listing as of February 23, 1990

ALABAMA: .....David Beck, 422 Laurie Dr., Birmingham, AL 35214
ALASKA: .....Dan Morisseau, 2616 Alpine Place S.E., Auburn, WA 98002
ARIZONA:.....Bob Schmulian, 4415 N. Rockcliff Rd, Tucson, AZ 85715
ARKANSAS: .....Lee Murphy, Rt 3, Box 402-A, Crossett, AR 71635
NORTHERN CALIF:.....Gary Webbenhurst, 8430 La Riviera Dr, Sacramento, CA 95826
COLORADO:.....Geore Hoggatt, 17473 E. 16th Dr., Aurora, CO 80011
CONNECTICUT:.....Stephen Repetto, 42 Glenstone Dr, Vernon, CT 06066-4202
DELAWARE: .....Position OPEN
DIST OF COLUMBIA:...Position OPEN
FLORIDA: .....Randy Kerr, 310-1 SW 62nd Blvd, Gainesville, FL 32607
GEORGIA:.....Steve Giovanis, 4314 14th St, East Beach, St Simons Island, GA 31522
HAWAII: .....Position OPEN
IDAHO:.....George Wight, P. O. Box 732, Groveland, CA 95321
ILLINOIS:.....Bob Fairburn, P. O. Box 463, Gridley, IL 61744
INDIANA:.....David A. Nugent, 2542 Birk Dr, Jasper, IN 47546
IOWA:.....Michael Scheel, 410 W. Garfield St, Davenport, IA 52804-1415
KANSAS:.....Steve Jester, 1115 North Park, Wellington, KS 67152
KENTUCKY:.....William G. Gourley, P. O. Box 1603, Paducah, KY 42002-1603
LOUISANA: .....Jeff Waldrop, 1018 Bee Tree St, Westlake, LA 70669
MAINE: .....Position OPEN
MARYLAND:.....William Staubs, 756 221st St, Pasadena, MD 21122
MASSACHUSETTS:.....Mariner S. Ayer, Jr., 299 Thompson St, Middleboro, MA 02346
MICHIGAN: .....Richard McLaughlin, 3921 Marland Dr, Lansing, MI 48910
MINNESOTA: .....Jerry Ensign, P. O. Box 28148, Crystal, MN55428-0184
MISSISSIPPI: .....Will McGilvray, 111 Kencrest Dr, Gulfport, MS 39503
MISSOURI:.....Michael Redman, P O Box 49, High Ridge, MO 63049
MONTANA: .....Position OPEN
NEBRASKA: .....James Hoover, 1628 York Ave, York, NE 68467
NEVADA:.....Fred McGowan, P O Box 879, Las Vegas, NV 89101
NEW HAMPSHIRE:.....Position OPEN
NEW JERSEY: .....Richard D. Prail, P O Box 1274, West Caldwell, NJ 07007
NEW MEXICO:.....Position OPEN
NEW YORK: .....Joseph Nooney, P. O. Box 30, Valatle, NY 12184
NEW YORK CITY .....Phil Caruma, 7225 73rd St., Glendale Queens, New York, NY 11385
NORTH CAROLINA.....Randy Whaley, 22F Sailsway Dr, Greensboro, NC 27406
NORTH DAKOTA: .....Position OPEN
OHIO: .....Position OPEN
OKLAHOMA: .....Jay D. Kruckenberg, Rt. 2, Box 31, Mooreland, OK 73852
OREGON:.....Al Musgrove III, 2402 E. McAndrews Rd, Medford, OR 97504
PENNSYLVANIA:.....Keith E. Maydak, 6393 Penn Ave, Pittsburgh, PA 15206
RHODE ISLAND: .....George Zabel III, 236B E. Beach Rd., Charlestown, RI 02813-1606
SOUTH CAROLINA:.....Billy Estes, 117 Willard Bouknight Rd, Irmo, SC 29063
SOUTH DAKOTA:.....Position OPEN
TENNESSEE: .....Curtis Harbin, P O Box 5576 EKS, Johnson City, TN 37603
TEXAS:.....Robert Barker, 1801 Wells Branch Pkwy #1630, Austin, TX 78728
UTAH: .....John D. Parken, 4672 South Deer Creek Rd, Salt Lake City, UT 84124
VERMONT:.....Dan J. Gilman, 123 Walnut St., Rutland, VT 05701
VIRGINIA: .....Landon Davis, 2807 Rifle Ridge Rd, Oakton, VA 22124
WASHINGTON:.....Kenneth E. MacLeod, P. O. Box 2495, Friday Harbor, WA 98250
WEST VIRGINIA:.....Position OPEN
WISCONSIN: .....John P. Johnson, 1905 E Lexington Blvd, Eau Claire, WI 54701
WYOMING: .....Christopher D. Smith, P. O. Box 1229, Ogden Utah 84402

Applications are available by sending a stamped, self-addressed envelope to:
RCMA Managing Editor, 961 Azalea Street, Boca Raton, FL 33486

CALENDAR

Send notices of upcoming events for the Calendar section to:
RCMA General Manager, P. O. Box 542, Silverado, CA 92676

Deadline: 1st of the month two months prior to cover date.

Dates for the "Feb 1990" Newsletter which hopefully you got in January.

Paste up completed	21 Jan	Labels to Mailer	8 Jan
Delivery to printer	24 Jan	Newsletter to Mailer	10 Jan

West Los Angeles Chapter

Contact: Rick DiFiore (CA-LA-544), (231) 397-6581 or
Hugh Stegman (CA-LA-472, (213) 398-5353
Talk in: 146.925 MHz (-600 PL-2A) Tues 1930 hrs net.

Meetings on the second Wednesday of each month at 7:30 PM, in the front patio of Chris's Pizza, 10105 Venice Blvd., Los Angeles (213) 838-2151. Nearest major street is Motor Avenue. This is east of the 405 freeway and south of the 10 (get off at Robertson and head west on Venice). Use or monitor 146.925 for talk in.

Austin Area Radio Listeners Meeting

Contact: David Litsinger (TX-032), 441-0650
P.O. Box 17142, Austin, TX 78760
Contact David for time and locations of meetings.

R.C.M.A. Chicago

Contact: Ron Kosinski, P.O. Box 528213, Chicago, IL 60652

Saturday	April	21	1990	1:00 P.M.
Saturday	June	9	1990	1:00 P.M.
Saturday	August	11		1:00 P.M.
Sunday	August	26		Annual picnic & Field day
Saturday	October		13	1:00 P.M.
Saturday	December		1	1:00 P.M.

The Chicago Chapter prints a local newsletter prior to each meeting. Send $5.00 to the contact person listed above to receive the next ten issues. Fees are used to cover the cost of postage and handling.
Visitors are welcome but please confirm the location in advance.

Northeast Scanners

Contact: Les Mattson (NJ-187), 212 West Broad Street, Paulsbor, NJ 08066

The Northeast Scanning News, a monthly publication covering the states of New Jersey, New York, Pennsylvania, Delaware, Maryland, DC, Maine, Connecticut, Massachusetts, New Hampshire, Rhode Island, and Vermont. Sample copies: $2.00. Makes checks out to Les Mattson.

R.C.M.A. for D.C., MD, VA, & DE

Contact:Capitol Hill Monitors:
Alan Henney (MD 069) 6912 Prince Georges Ave., Takoma Park, MD 20912
Arnold Miller (MD 054) 407 Foxview Court, Reisterston, MD 21136

Local Chapter Newsletter is supplementary to the RCMA and the NESN newsletters. The CHM newsletter appears as a NESN column (See Northeast Scanners section for subscription information). No meetings presently scheduled. Please send information & requests for Baltimore Region to Arnold, and all other areas (including Washington) to Alan. Visitor, traveler & frequency requests are welcome. (Please send an SASE).

R.C.M.A. Minneapolis-St. Paul Area

Contact: Chuck Steier (MN-008), 4820 Hwy 7, Minneapolis, MN 55416 (612) 927-9253

AN SASE on file assures notification of chapter activities (tours, gatherings, etc). Non members are welcome to attend.

Philadelphia Notification Network

Contact: Chuck Gysi (PA-005), P.O. Box 974-PR, Burlington, IA 52601-0974

PNN is a scanner notification group composed of RCMA members in the Philadelphia area, including Pennsylvania, south and central New Jersey and northern Delaware. PNN operates a wide-area UHF repeater system so that participants can notify each other of urgent scanner activity. PNN also holds occasional meetings during the year. Send an SASE for information.

Regional Communications Network

Contact: Jay Delgado (NJ-249), Box 83, Carlstadt, NJ 07072-0083

RCN is "A Two-Way Radio Communications Monitors' Association" interested in monitoring communications from public safety to satellites. For information send an SASE #10 (business size) to contact person.

All Ohio Scanner Club A Full Member of ANARC

Contact: David B. Marshall (OH-146), Managing Editor, ASOC Newsletter
50 Villa Road, Springfield, OH 45503-1036

The All Ohio Scanner Club covers all of Ohio, plus Illinois, Indiana, Kentucky, Michigan, Pennsylvania, West Virginia, and Ontario, Canada, plus other areas as well. Members from these and other areas are welcome. The AOSC newsletter features execellent federal government and below 30MHz utilities columns.

Sample Newsletter $2.00. Membership information for an SASE

6th Annual Sumer Meeting and Family Picnic on Saturday, July 23, 1990 in Columbus, Ohio. R.C.M.A. members are invited, and should send an SASE to above address for more details.

Southern California Area Dxers

Contact: Don R. Schmidt, Director, 3809 Rose Avenue, Long Beach CA 90807-4334

Meetings Long Beach MERCURY SAVINGS 4140 Long Beach Blvd.

February 24, 1990 June, 23 1990
March 24, 1990 July 28,1990
April 28, 1990

Toledo Area Radio Enthusiasts

Contact: Ernie Dellinger 6629 Sue Lane, Maumee, OH 43537, (419) 865-4284

The TARE is a group of radio buffs (SWL & scanners) that meet on the third Thursday of each month at 7 PM at Frisch's Big Boy Restaurant, 6609 Airport Hwy (St Rt 2 just west of I-475) in Holland, OH.

R.C.M.A. Wisconsin

Contact: Scott W. Miller (WI-039), 122 Greenbriar Drive, Sun Prairie, WI 53590

ATTENTION

Monitoring Enthusiasts in the Portland/Vancouver Area

Interested in forming a scanner group? Contact Chris Black (CA-SM-048), 39 Walking Woods Dr., Lake Oswego, OR 97035, (503)697-3076.

Watch for the MAY ISSUE of the RCMA Newsletter!!!

It should be worth looking at. We sure hope so, as it will be the first issue in a new format size--8½x11. The type size will be larger and therefore easier to read. That much we can promise you. There are still details to be worked out, e.g., graphics and so forth, but the May issue will still be an incredible change from the first RCMA Newsletter of nearly 15 years ago.

We invite your comments on the new format. It represents a tremendous amount of work--both from all the editors who participated by sending their column material on disc and at the California end as well. Speaking personally, I am deeply grateful to the editorial staff (especially Bill Mauldin) and to our own resident computer whiz, John Clark (CA-OR-078)! - Carol Ruth, RCMA General Manager.

NEED RCMA BACK ISSUES?

1988, 1989 and 1990 issues to date are available until Dec. 31, 1990, at which time 1988 issues will no longer be stored. The following postage rates apply to *all* orders, and are in addition to the cost of the newsletters.

THE COST OF EACH ISSUE IS $1.00

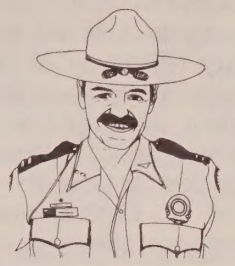
When ordering, calculate $1 per issue. Then refer to the chart below for the correct amount of postage. (Rates based on 1st class USPS.) Address order to RCMA Back Issues, P.O. Box 542, Silverado, CA 92676.

# OF ISSUES	AMOUNT OF POSTAGE
1	$ .85
2	$1.65
3	$2.25
4 thru 8	$2.40
9 thru 12*	add $ .48 for each issue

Issues not available:
December '87
December '88
January '89
March '89
May '89
June '89

*Orders shipped at maximum of two years (24 issues) per package.

PLEASE NOTE: If for any reason the amount of your check or money order is greater than that needed to fill your order, the difference will be applied to your current membership. This applies to any amount under $10: if more than $10, you will receive a refund check.



From The CAPTAIN'S DESK

William Mauldin, RCMA General Editor
961 Azalea Street, Boca Raton, FL 33486

1990 SURVEY REPORT

The frequency lists from the 1990 ANNUAL SURVEY have been mailed to the State Associate Editors. The response this year was much better than in the past. The information will start appearing in the different columns starting next month. There was a considerable collection of data in the SURVEY. The State Associate Editors were requested to distribute the data to the correct Staff Column Editors.

If there is nothing from your area when the information is printed, I do hope you will ask yourself this question, "Did I do my part and send in my favorite frequency list?" At least fifty SURVEY sheets were completed and returned with empty frequency lists. Maybe these members didn't have anything they wanted to share with the rest of us. I had to smile over the frequency list which was returned with this note, "This is really dumb. All of the information will be different!" I sure hope so! We need all of the "different" information we can get!

I am planning to repeat the frequency listing part of the SURVEY again in July. Most of you responded well to this part of the ANNUAL SURVEY, and I am looking forward to more participation next time around! Thanks to everyone who responded!

FEDERAL FREQUENCY UPDATE

During the past few months I have been in touch with the FCC and other federal agencies regarding the RCMA Policy against publication of federal law enforcement frequencies. My correspondence to the FCC Enforcement Chief requested a review and official comment on the publication of federal law enforcement frequencies. The request was forwarded from the FCC Enforcement Division to the United States Department of Commerce, National Telecommunications and Information Administration, the agency that is now the authority which manages and authorizes the federal radio spectrum.

The final response from the NTIA says that "we neither object to nor condone the publication of any monitoring data provided such monitoring is performed in accordance with the Communications Act of 1934, as amended. Additionally, the NTIA will neither confirm nor deny the accuracy of any monitoring data." This letter has been forwarded to the RCMA Board for their information, and possible review of the federal frequency publication policy within RCMA. By the time you read this, the matter will have been taken up by the Board, and possible changes could have been made in the club Policy.

As a law enforcement officer, I do not want to see any frequency published that endangers life or property. RCMA must continue to assume a position of responsible leadership in the hobby, however, RCMA also has a responsibility to the membership to provide an interesting magazine devoted to the hobby communications monitoring. It is apparent that the federal government is not going to object to the publication of generally well known federal law enforcement frequencies, especially if selected and published in a responsible manner. Also, as a law enforcement officer, I know from daily experience that most secret, secure, and classified communications are now easily encrypted with DVP or other means of scrambling.

The letter from the NTIA along with my recommendations have been forwarded to the RCMA Board for their consideration. Under the terms of the letter received, I have recommended that RCMA Policy be reviewed and changed to allow the Federal Editor to publish selected federal frequencies under the guidelines of:

1. Publication will not knowingly endanger the lives of law enforcement officers or the general public.
2. The frequency must be obtained from an unclassified source.
3. Body surveillance transmitter frequencies shall not be published.
4. Any frequency which would not be of interest to the normal, law abiding scanner hobbyist will not be published.

The information published in the monthly RCMA Newsletter is solely for the enjoyment and entertainment of our hobby related members. The policies and objectives of RCMA are devoted exclusively to this theme.

The RCMA Board meeting has taken place by the time you read this article. We will be publishing details of the decisions next month.

UNIDEN STILL IN CONTROVERSY

The W5YI REPORT says Uniden is apparently still trying to sell 10 meter amateur transceivers to truckers. Uniden had a full page ad in the January 1990 issue of OVERDRIVE, a commercial trucking magazine. The ads, aimed at 18 wheeler operators, offers $100 off a PT104 Trucker Radar Detector through February 1990...when purchased with a Uniden HR2510 radio or a PT104 Trucker CB radio. The ad has no mention of a license being required for the use of the 10 meter amateur transceiver. The amateur community is very upset over the ads, and has brought the matter to the attention of the Commission, asking for stronger enforcement actions against those involved in unlicensed operations.

Speaking of Uniden, unfavorable reports are still being received from those who have seen the new Uniden MR 8100 scanner in operation. The reports received by this office have been forwarded to Curtis Harbin of New Product Review for printing. Should you have comments about this or any other new scanning product, please address them to Curtis.

FCC ENFORCEMENT DIRECTED TO UNLICENSED OPERATIONS

Several publications and industry magazines carried articles this month regarding the concern of the Commission over unlicensed operation and other problems facing the users. The Commission continues a relentless crackdown over the use and sale of unauthorized high powered amplifiers in the CB band. As you know from past articles on this subject, the Commission and US Marshals have made several major arrests and equipment confiscations, closing several dealers who were selling the illegal, high power equipment.

The Commission has voiced concern over the problems of malicious interference in the 20 meter (14 MHz) amateur band. Both FCC monitoring stations and monitoring vans are being used daily in an attempt to identify those causing the interference.

With unlicensed operations increasing at an alarming rate, the FCC is being pushed to the limit in enforcement efforts. The problem is not limited to just those who pick a frequency and transmit. Those who are licensed are not being as careful about renewing. The problem is so apparent that one half of a page is devoted to the subject in the new 1990 POLICE CALL directories. For example, the Florida Highway Patrol allowed the Florida Turnpike radio system license to expire without renewal. Once the oversight was caught, the renewal was filed, but not without several days of unlicensed operation.

In an attempt to offer better enforcement at the same or lower costs, the FCC is considering taking over the Amateur Auxiliary. The Auxiliary, currently funded and managed by ARRL as part of the Official Observer Program, would give the Commission lots of volunteer manpower to assist enforcement officers and monitoring stations in the performance of their duties. A San Juan FCC meeting will have this subject on the agenda. If approved, the amateurs accepted for the Auxiliary would be working volunteers for the FCC, much as auxiliary members do for the police, fire, and Civil Air Patrol.

IN THE NEWS THIS MONTH

Bobby Unser, NASCAR race car champion, has patented a new electronic device offering a radar detector and scanner in one package. The news report says that a single microprossor is being used to process signals from each source, in theory increasing the use of either police radio or police radar in a given area. Marketing is expected in all states except Virginia and Connecticut, where radar detectors are illegal. The name of the new device is Trident. Initial marketing and sales are being handled by Trycomm, Inc., of Fishers, Indiana. Coinventor of the new radar detector, scanner is Steve Crum of Ace Communications.

Jeff, IN-060, sends us a product announcement from Icom regarding their new Icom IC-R100 scanning receiver. The announcement gives the following information: tuning by keyboard or tuning knob; 100 kHz to 1856 MHz frequency range in AM, wFM, nFM; 121 memory channels, 100 of which are devoted to operating frequencies, modes, RF attenuator and preamp settings; 20 scan edge memory channels are used for programmed search; built-in 24 hour clock; three antenna connectors; and clock battery. Icom is also announcing a super small handheld scanner, the IC-R1. Offering many of the above features, the IC-R1 covers 100kHZ to 1300 MHz, and measures 1.9"w x 4.0" h x 1.4"d. The accessories of the current Icom "S" series fit the new handheld scanner. Icom says both products will be on the market by April 1990. Further information may be obtained from Jeff at 1-800-729-4373 or from your Icom dealer.

Radio Shack announces the new PRO-2022 scanner. The scaled down version of the popular PRO-2005 offers the same outstanding performance, but less frequency range. Coverage of this new radio is 30-54, 108-174, 380-512, and 806-960 (with cellular deleted, of course). There are 200 channels in 20 banks. The cabinet is black. The display is LCD, and the basic design is much like big brother, the PRO-2005. Radio Shack again produced a 12V and 120 VAC scanner with a permanently attached AC cord. Memory is retained by the standard 12 volt battery, like other Realistic scanners. The scanner offers about the same performance as the PRO-2005 and older PRO-2004. As MONITORING TIMES said in their review, there is

really nothing special about this scanner, but there are no disappointments either. I couldn't have said it better myself. Most Radio Shack dealers will be selling the new scanner for $349.95, but mail order discounts can be had for the selective shopper.

Our congratulations to Peter Kemp, KZ1Z, CT-007, for his success in obtaining a QSL card from Soviet Cosmonaut Aleksander Volkov, following a club radio contract on February 19, 1989! Pete and the group were operating the club amateur station located at the Bethel Middle School in Bethel, Connecticut! The group, calling itself B.E.A.R.S., for Bethel Educational Amateur Radio Society, has managed to contact nearly 30 MIR spacecraft during their operational periods!

U.S. SCANNING NEWS publisher, Bob's Publications, has indicated an interest in drafting a legislative document which would be available to those scanner users living in states or cities which are proposing laws to deal with scanner use, especially in motor vehicles. The purpose of the effort is to offer guidance to law makers, providing them with a sample legislative document which would not penalize the hobby scanner users. If you are interested in joining the project or want more information, contact U.S. SCANNER NEWS, P.O. Box 1103, Vancouver, WA 98666. You may also contact the RCMA Editor for Monitoring and the Law for more information.

U.S. SCANNING NEWS also sent us information regarding the UNIDEN BC100XLT and the BC200XLT scanner battery problems. Uniden has offered to repair free of charge any of the above handheld scanners which have a problem with the battery low indicator coming on prematurely. The free service will be available to all owners, even those out of warranty and with cellular modification. Scanners should be sent to Uniden Service Department, 9900 Westpoint Drive, Indianapolis, IN 46250. Questions can be answered by Uniden at 317-842-2483.

A member writes to say that he has had problems with The Electronic Workbench of Cumberland, Maine. In the letter, Jim, IN-089, indicated he had sent his scanner to the Workbench for repair. Since then, the company seems to have gone out of business, as letters are not answered and the phone has been disconnected. We strongly suggest to all members that before you send anything to a repair company that you check with the Better Business Bureau or the manufacturer of the radio to insure that the business is reputable. A word to the wise, as the old saying goes. We thank Jim for bringing this to our attention.

A Kansas City ham was recently stopped by police as a part of a routine traffic check. During the check, police noticed the ham handheld on the seat of the car. Thinking it was a handheld scanner, the licensed amateur had his handheld confiscated "because it looked like a scanner", according to ARRL. As a result of this case and others, the American Radio Relay League (ARRL) has filed a Request for Declaratory Ruling before the FCC. The League indicates that the two worst states for notorious enforcement are Kentucky and New Jersey. Scanner users and amateurs in New Jersey are fighting now to have the NJ law repealed. The Kentucky law may be even worse, as it states that "possession OR use of radio equipment, whether in a vehicle or not, that can receive or transmit in the spectrum allocated to police" is a law violation. Police in Kentucky can seize radio equipment and antennas as evidence, and the equipment can be destroyed "without a conviction of the person being charged with violating" the law. The ARRL move is expected to give FCC lawmakers some new problems in the months ahead, as the Commission is forced to take up this matter. (W5YI, ARRL)

CLOSING COMMENT THIS MONTH

Correspondence related to legal news and state laws should be addressed to the Editor of Monitoring and the Law. Jorge needs your input and news stories to keep all members informed regarding pending legislation.

If you buy a new scanner or antenna, please send your user comments to Curtis Harbin, Editor, New Product Review. All of us want to know more about the new products on the market. Do your share and send in a report regarding your latest purchase.

ACE COMMUNICATIONS is now producing the AR2515 with version 3.0 software chips. This new software corrects many of the bugs found in earlier versions of the scanner. The update is available for reasonable cost and shipping. Contact ACE for details on an update.

The 1990 POLICE CALL volumes are out. The blue books should be available at your local dealers by the time you read this. The books are a product of Hollins Radio Data. Check the book review section for more details.

The Dayton Hamvention is scheduled for the last week of April. The annual amateur hamfest and swapmart has turned into one of the world's largest electronics conventions, with something for everybody. If you live anywhere close, or plan to be in the Dayton, Ohio area during the last weekend in April, this is one event that you should not miss. Everybody interested in radio should attend at least once, as it is truly an unforgettable experience! For those planning to stay overnight in the Dayton area, reservations are a must, otherwise you'll end up sleeping in the car or maybe Cincinnati.

If your state is lacking coverage in the Newsletter, I would like to hear from you. Our objective with the Associate Editor program is to have every state in print, every month, proportional to the number of resident members. When you write me, send a list of at least 25 frequencies that you monitor. An effort will be made to see that coverage is increased. Remember that RCMA does not normally use information contained in commercially printed directories for the Newsletter. Our information comes from members like you. Your input is required.

RCMA has been making plans for months to increase the finished size of our newsletter to that of a standard 8½×11 magazine format. We will have a more professional looking publication, with typeset or easier to read print. Many of you commented on the Newsletter being hard to read. These improvements will be appearing soon! Our thanks to Carol Ruth at the Business Office and the California staff for the many hours of work they have extended on this project!

AIRCRAFT

Civilian: Send private, commercial, firefighting and law enforcement aircraft frequencies in the 108-136 MHz range and frequencies in other bands associated with civilian aircraft or airports.

Military: Send information and frequencies for military aircraft in the 118-140 MHz and 225-400 MHz bands and frequencies in other bands associated with military aircraft or aircraft support-related frequencies at Naval, Coast Guard, and Marine Air Stations, Army Air Fields, and Air Force Bases.

Send information, questions, articles, and tips related to aircraft monitoring to:

Darrel Charest, 3420 Trenary Lane, Colorado Springs, CO 80918

Firefighting and law enforcement aircraft freqs and airport security freqs are welcome in this column and in the Public Safety columns. Civilian and military HF SSB freqs are OK when handed off to or from ARTCC controllers; otherwise, send to the Below 30 MHz column. All air show associated frequencies are fair game. Other non-aircraft-related military freqs go to Federal Government and Military column.

From the nations capital, David, DC–018, writes "Whenever I read frequency listings or aviation monitoring reports for aircraft/aviation, I notice quite a listing of abbreviations and special use terms. To the uninitiated it can get quite confusing." David continues by listing common terms and acronyms appearing in the column that have no meaning to those unfamiliar with aviation. VALID CRITICISM. Beginning next month, we plan to print selected items from the Pilot/Controller Glossary published in the FAA Airmans Information Manual. These terms/acronyms appear after frequency listings and will continue monthly until we have exhausted this source.

You may recall last month we quoted Federal Air Regulations concerning the use of electronic devices aboard commercial aircraft. Before the column was printed, we received a letter from Tom, FL–300. Tom asked if he would be allowed to take his PRO–34 on board to monitor the progress of his flight. Tom's letter made my day. As reported earlier, the Captain's permission is required before using your scanner in flight.

Jim, CO–077, has been circulating recent issues of the RCMA Newsletter among Denver based Rocky Mountain Radio Listeners, soliciting new recruits. Some RMRL members expressed interest in RCMA and Jim believes several may have applied for membership. During April, he plans on travelling the Western desert areas with his scanner. On his return, we look for a long, exotic, tabulation of active military frequencies for these areas.

Carl, WI–54, forwarded several news clippings reporting military aviation developments in his area. One reported on the objections of residents to the installation of a Ground Wave Emergency Network. GWEN is a strategic communications link with bombers, missiles and aerial command posts. Most objections focused on cost and questioned the need for the facility.

Another clipping reports on the installation of an Air Combat Maneuvering Instrumentation (ACMI) system at Volk Field Air National Guard Base. The system is composed of radars, computers, and micro–wave relays. When ACMI was observed by your editor at Nellis AFB in 1980, it was one of a kind. Placed in a small theater environment, a computerized projection portrays a live exhibition of air–to–air combat training maneuvers. Furthermore, ACMI video tapes the exercises and the electronic scoring. Then tapes are viewed during debriefing to evaluate scores and performance. If you have the opportunity to observe ACMI, it will prove an experience you will not soon forget.

Scott, OR–099, furnishes us with active frequencies for the Baker, Oregon area along with an interesting article from Oregon Aviation News. The article provide details of a new heliport in Portland. The landing area uses a pilot controlled Pulsed Light Approach Slope Indicator – PLASI, for day or night use. Operating the PLASI system for a specific direction is accomplished by keying 123.05, the UNICOM channel, three, five or seven times. While pilot controlled lighting systems are common at many small airports, use in this type environment is a new application.

Guy, CA–FR–014, mailed confirmed channels for central California and asked if we could add to his listing. Our reply, with a few new channels, had to be relayed through our General Manager because his return address was covered by the post mark.

Steve Giovanis, AE Georgia, returned from Atlanta with a list of verified channels for Hartsfield. Included in his letter was a clipping reporting on joint training efforts between the U.S. Coast Guard and the Federal Law Enforcement Training Center at Glynco airport. These joint exercises deal primarily with drug interdiction and search and rescue operations.

Brad, OH–138, provides these unconfirmed frequencies for the new Alliance airport near Ft Worth – tower 135.15/263.0, ground control 121.70/348.6.

Roger West, MN–052, sends a listing of frequencies monitored by his son, Sgt. Bill West from Ft Polk, Louisiana. Roger mentioned a single engine airplane in his area attempted an emergency landing on the freeway. The first bounce atop a semi–trailer may have resembled a carrier landing. Subsequently the airplane came to rest beside the interstate. Yet in spite of these complications the pilot and two passengers walked away unscathed.

Bill, PA–294, mailed an activity log of VHF and UHF channels monitored at Williamsport, Pa. These frequencies are from Bill's log.

122.0	Flight watch	127.475	Rochester Apch
128.575	New York Center	129.55	New York ARINC
132.125		133.15	
133.35		135.425	
236.1	Cleveland Center	243.0	Williamsport Radio
259.4		269.1	
272.7		287.3	
291.6		298.9	
306.2	New York Center	306.9	Cleveland Center
319.4			

Received from Roger West; reported by his son, Sgt. Bill West from Louisana.

Ft Polk			
119.00/248.2	Tower	121.80/248.0	Ground
143.20/373.3	Range Control	123.45/374.2	Operations
118.45/342.5	PMSV Metro	108.4	ATIS
Lake Charles			
120.70/257.8	Tower	121.70	Ground
119.75	Helio Operations	126.40/381.6	Apch/Dept
119.35	Apch/Dept	119.80	Apch/Dept
England AFB			
126.20/255.6	Tower	275.8	Ground
121.20/289.1	Apch/Dept	395.9	Apch/Dept
372.2	Pilot to Dispatcher	381.3	Command Post
280.5	Supervisor of Flying	239.8	PMSV/Metro
Shreveport Downtown			
119.60/247.6	Tower	121.70	Ground
Barksdale AFB			
126.20/236.6	Tower	121.80/275.8	Ground
350.2	Apch/Dept	373.1	PMSV/Metro
Shreveport Regional			
121.40/257.8	Tower	121.90/257.8	Ground

From Steve, AE Georgia; verified during recent visit to Atlanta.

Atlanta Hartsfield			
119.10	Tower	119.50	Tower
123.85	Tower	121.90	Ground
121.75	Ground	121.65	Clrnc Delivery
130.35	ARINC	126.90	Apch/Dept
127.90	Apch/Dept	129.00	ARINC
131.40	ARINC	119.30	Apch/Dept
129.725	Ramp Control	129.275	Ramp Control
129.375	Ramp Control	129.675	Ramp Control
123.925	Unkn	124.025	Unkn
119.35	Apch/Dept		

From an anonymous Colorado contributor during a recent visit to the Pacific Northwest.

Whidbey Island NAS			
126.85/340.2	Tower	127.90/339.5	Tower
121.75/336.40	Ground	337.0	Unkn use
34.15	Helio Rescue	118.20/270.8	Apch/Dept
120.70/286.0	Apch/Dept	120.70/336.4	Ground
124.15/380.8	Clrnc Delivery	126.05	PAR Oak Harbor
139.50	Squadron Ops	140.00	Seaplane Security
140.095	Fire/Rescue	140.10	Field Ops Tower
123.05/244.4	ASF Operations	258.6	Hawk Operations
266.8	GCA Apch	268.7	A–6 Operations
120.70/270.8	Apch/Dept	279.9	Unkn use
280.3	ATIS	281.8	Squadron Ops
282.8	USCG SAR Common	286.0	Apch/Dept

300.0	ACLS Apch	300.4	GCA
300.6	Unkn use	306.0	Squadron Ops
310.8	GCA	313.3	Unkn use
318.5	Squadron Ops	320.4	Unkn use
322.0	ACLS/GCA	325.2	ACLS/GCA
328.4	ACLS/GCA	342.2	Unkn use
344.2	Rng Control R-6713	344.6	PMSV/Metro
346.0	GCA	350.0	Base Ops Ault Field
350.1	Unkn use	350.5	Unkn use
352.4	Unkn use	355.1	Squadron Mntnc
356.2	Unkn use	360.9	Firewood Base
361.9	Unkn use	363.3	Paddles
376.8	Unkn use	380.6	Unkn use
384.4	Coupville OLF Paddles	385.0	Unkn use
360.2	Boardman Bomb Range	381.8	USCG Port Angeles Ops

Tacoma Industrial

118.50/241.2	Tower	120.10/290.9	Apch/Dept

Grey AAF Ft Lewis

126.20/241.0	Tower	121.90/229.5	Ground
125.40/290.9	Apch/Dept		

Renton

124.70/256.9	Tower	121.60/256.9	

Boeing Field

120.60/257.8	Tower	121.90	Ground

McChord AFB

124.80/259.3	Tower	125.40/391.9	Apch/Dept

Vancouver, B. C. Canada

118.70/232.7	Tower	121.70/275.8	Ground
124.00/236.6	Tower		

Victoria, B. C. Canada

119.70/239.6	Tower	121.90/361.4	Ground

Air refueling AR-630 235.10 Entry 319.2 Exit 269.0

From Guy, CAFR-014 for Central California

Fresno

118.20/251.1	Tower	121.70	Ground
125.30/315.6	Apch/Dept	119.60	Apch
132.35	Apch	122.00	Flt Watch
120.55	FSS	119.00	Apch
130.1	Delta Airlines	119.30	ATIS
118.50	Visalia Apch/Dept	124.10	Lemoore NAS Apch/Dept
121.25	Oakland ARTC Ctr	123.80	Oakland ARTC Center

From Scott, OR-099 for Baker, Oregon.

122.40	Baker FSS	122.20	Baker FSS
123.60	Baker Airport Advisory	123.00	Baker Unicom
130.40	ARINC (SFO) Pendleton	126.35	Salt Lake Center

This extensive listing is from Zel, MO-048,

118.10	Kansas City Tower	135.15	Chicago Center
118.40	KC Center/Columbia	135.20	Des Moines Apch/Dept
119.30	Columbia Tower	135.75	Chicago Center
119.50	Des Moines	235.1	Aerial refueling
119.60	Kansas City Center	236.6	Aerial refueling
119.70	Cedar Rapids Apch/Dept	239.8	Scott AFB Metro
120.10	Omaha Apch/Dept	383.2	Scott AFB Cmnd Post
121.37	Chicago Center	251.1	Aerial refueling
121.40	Minneapolis Center	252.1	Aerial refueling
122.00	Columbia Flt Watch	257.8	Des Moines Tower
122.20	Columbia FSS	257.9	Air National Guard
122.25	Columbia FSS	260.2	Aerial refueling
122.65	Columbia FSS	271.675	SAC
123.45	Multicom	269.3	KC Center/Kirksville
123.60	Quincy Apt Advisory	277.4	Aerial refueling
124.50	Omaha Apch/Dept	279.5	Kansas City Center
124.70	Kansas City Intnl	285.6	Kansas City Center
125.15	St Louis Apch/Dept	287.3	Air National Guard
125.25	KC Center/Chillicothe	290.7	Kansas City Center
125.60	Jefferson City Tower	295.8	Aerial refueling
125.65	Minneapolis Center	307.0	Fighter Formation
125.72	Kansas City Center	310.1	Giant Killer
126.50	Kansas City Apch/Dept	312.0	SAC Command Post
128.05	ARINC	314.5	Air refueling
128.47	FSS High Alt Comm	318.0	Air refueling

128.525	Chicago Center	321.0	SAC Secondary
129.20	American Airlines	327.1	Kansas City Center
129.225	American Airlines	342.5	Offutt AFB Metro
129.45	United Airlines	344.6	Whiteman AFB
129.60	Continental Airlines	348.9	Springfield
130.25	American Airlines	349.4	Air refueling
130.45	Eastern (Atlanta)	352.8	SAC
130.65	Scott AFB MAC	364.2	NORAD
130.95	St Paul Operations	369.4	SAC ?
131.30	ARINC	372.2	Offutt AFB PTD
131.85	Springfield	375.7	Air refueling
132.40	Minneapolis Center	381.3	Mainsail
132.60	KC Center/Kirksville	381.5	Kansas City Center
132.725	Chicago Center	383.2	Scott AFB Command Post
132.95	Kansas City Apch/Dept	133.35	Kansas City Center
133.725	Kansas City Center	134.50	Kansas City Center
134.70	Kansas City Center	135.00	KC Center/Kirksville

AMATEUR RADIO COMMUNICATIONS

This column is for reporting on amateur radio activities that may be of interest to scanner listeners. Send reports and questions concerning repeater nets, civil emergency systems, packet radio, amateur TV, etc., to:

Gordon West, 2414 College Drive, Costa Mesa, CA 92626

"HAM RADIO GOING TO THE BIRDS"

Now that I have your attention, the birds I'm referring to are amateur radio satellites. They are all around us, and it's easy to pick up the satellites with a simple radio scanner, or your little 2-meter handheld transceiver.

The latest "birds" aloft are the new microsats. One in particular, "Dove", can be heard loud and clear 5 times a day on 145.825 MHz. You don't need anything special to hear this microsat--it's transmitting a type of FM, and it's presently downlinking both data as well as digitized voices. And who are those voices? Well tune in for yourself, and you'll hear how the international traveling bird is speaking "peace messages" from kids around the world.

The satellite is in an orbit that gives us about 8 to 10 minutes of air time as it passes over the horizons. It's in an orbit that gives us at least 2 or 3 overhead shots a day, so give it a listen to after you put down this issue of RCMA Journal. Chances are you'll jump out of your chair when you hear the very strong signal on 145.825. You may hear digital packet, and on the other hand, you may hear the sounds of prerecorded kids giving their peace messages all over the universe.

And here are the latest frequencies for those satellites that may be received with scanning and receiving equipment capable of upper sideband reception and CW:

Mode	Uplink	Downlink
A	145.9 MHz	29.4 MHz
B	435.5 MHz	145.9 MHz
J	144.3 MHz	435.9 MHz
L	1.269 GHz	435.8 MHz
S	435.5 MHz	2.400 GHz
K	21.2 MHz	29.4 MHz
T	21.1 MHz	145.9 MHz

It's those downlink frequencies that you'll hear direct from the satellite. Again, you'll need more than an FM scanner to hear these birds--you'll need a regular amateur radio satellite set, or a scanner that features upper sideband or CW or BFO reception. You won't hear much on the uplink unless your next door neighbor is a ham and actually transmitting.

Don't forget, the new "Dove" microsat operates conventional FM, and any old FM scanner at 145.825 will hear the signals loud and clear, even with a simple telescopic whip indoors!

Do you own an IBM-type personal computer? If so, some new computer programs are available to download weather satellite charts on facsimile as well as weather satellite charts showing satellite imagery as seen on the nightly news broadcasts. The most popular PC programs are from Software Systems Consulting (San Clemente, California; 714/498-5784). Ask for John Hoot. He's a ham, too.

The geostationary satellites give us the wide-angle view of the globe. GEOS 5 is positioned at 64 degrees west, and acts as a relay for the National Weather Service. Its imaging system broke down several years ago.

GEOS 6 is positioned at 135 degrees west, and relays images from U.S., European, and Japanese satellites. Unfortunately, its imaging instrumentation has also gone ka-put.

GEOS 7 is the only U.S. satellite capable of imaging. It gets moved between 93 degrees and 110 degrees depending on the season. Look for another GEOS satellite to go up in orbit by 1992.

Receiving the GEOS geostationary satellites is about a $1,000 proposition. You need to capture the signal at 1691 MHz. This requires a loop Yagi antenna, into a down-converter, and then into a wide-band scanner set at 137.5 MHz. You can easily modify your own scanner if you have an old one lying around that you no longer use. Call John Hoot and he will tell you how to change out the crystal filter.

At 137.5 MHz, you take this data, and with the Software Systems demodulator and software, run it into your computer. Now sit back and watch the weather unfold in front of you, updated every 5 minutes.

A less expensive way to capture the weather from the satellites is from the American polar-orbiting satellites and the Russian polar-orbiting satellites. These birds are within view several times a day, and their 137 MHz signals come in loud and clear to any scanner receiver. Some scanners that offer wideband FM reception will capture all of the information nicely. For under $175, you can buy a new modified scanner from Hoot, and with his $100 PC program, take the audio output and run it into the software and demodulator, and end up with some fascinating close-in imagery. And more good news: that imagery is actually uploaded and downloaded digitized satellite shots of our local area with superimposed state boundaries. This lets you know exactly what you are looking at. Since these are low-orbiting satellites, and not geostationary satellites, the view you get is close in. It's fascinating to see!

Sounds interesting, doesn't it? If nothing else, after you read this article, go in and dial 137 with an upper limit of 138 MHz on your scanner, and search in between for polar-orbiting satellite signals. Or better yet, just leave your scanner on 145.825 MHz, and listen in on the excitement of the new amateur "Dove" satellite.

For more information about down-converting and displaying satellite imagery on your PC, write John Hoot in San Clemente, or give him a call. And for more information about the amateur radio satellite program, read any ham radio magazine and consider your membership to AMSAT, the voluntarily funded organization that keeps our amateur satellite program running.

Yup, the ham radio service has definitely gone to the birds, and I love it! Try it today yourself.

BEGINNER'S CORNER

If you are new to monitoring or have a question about something you don't understand, please write to me at the address given below, and I'll try to answer you. When posible, your questions and answers will be printed. For those who wish an immediate reply, please send a self-addressed, stamped envelope.

Edward Gleason, 2513 Bucida Drive, Sarasota, FL 34232

Hello everyone and welcome to the April Beginner's Corner column. I trust you're all ready for spring. Here in Florida, April usually means turning on the air conditioning after a temperate winter.

READER MAIL

Yes, this month I have cause to use the above subtitle. Thanks everyone!

I have some unfortunate information to relate. Jim, (IN 089) read about **The Electronics Workbench**, 232 Main Street, Cumberland, Maine 04021 in the RCMA Newsletter (*FROM THE CAPTAIN'S DESK*, October, 1989). Jim sent his Bearcat handheld scanner to be repaired, apparently without making further inquiries. At this writing he has neither received his scanner back nor has he been able to contact the company (their phone is apparently disconnected).

Jim has been advised by both this editor and the General Editor to contact the Better Business Bureau, the Maine District Attorney's Office and the Postmaster concerning this matter. If any member has any information about the Electronics Workbench, please write to me and I'll pass the information along to Jim.

This seems like a good time to remind the membership that what appears in the pages of the RCMA Newsletter in no way constitutes an endorsement. The RCMA Newsletter exists to provide information that may be of value to RCMA members. This information exchange in no way obviates the need to exercise prudence and caution when dealing with any company found within these pages.

I received quite a bit of mail concerning my January plea for the address of where you can order Microfiched listings of frequencies from the U.S. government. I would like to thank Ron (MI 204), Marvin (CASC 054), Jeffrey (MA 130) and Mike (MO 002) for their prompt response to an editor in need. And now here is the information we have all been waiting for:

U.S. Department of Commerce
National Technical Information Service (NTIS)
Springfield, VA 22161
Tel: (703) 487-4929 (703) 487-4650

Members can write to the address listed above or call one of the phone numbers listed and request further information. Mike (MO 002), Marvin (CASC 054) and Jeffrey (MA 130) all recommend ordering the "State Index to Non-Government Master Frequency Data Base." This data base breaks the FCC Licenses down by State, then City and then Frequency.

Mike also mentioned the Action Data Processing Co. as another source for frequencies. He states that a phone call to (301) 587-0558 will produce their catalog. Mike finds that the CRB publications are "as useless as the Betty Bearcat Directory." I too have found the Betty Bearcat Directory very outdated. Mike is pleased, however, with Police Call.

Marvin indicated that he has copies of the FCC microfiche available for any state, except California, for $5.00. Anyone interested can write to him at:

Marvin Elwell (CASC 054)
P.O. Box 73
Cupertino, CA 95015-0073

LISTENER INFORMATION EXCHANGE UPDATE

At this writing the February Newsletter appears to be in the mail or recently delivered to the general membership. Listener Information cards are starting to trickle in. I expect more soon, so sit tight. I should have more to report next month. Having given further thought to this program I cannot see any reason why some of the information freely exchanged shouldn't also contain frequencies. This can be done using the RAC Database program or members may wish to trade printouts and manual frequency lists. Since I haven't begun mailing out the list yet, those members with Frequency lists to offer can write to me and I will include this information in the "other" category.

MISCELLANEOUS

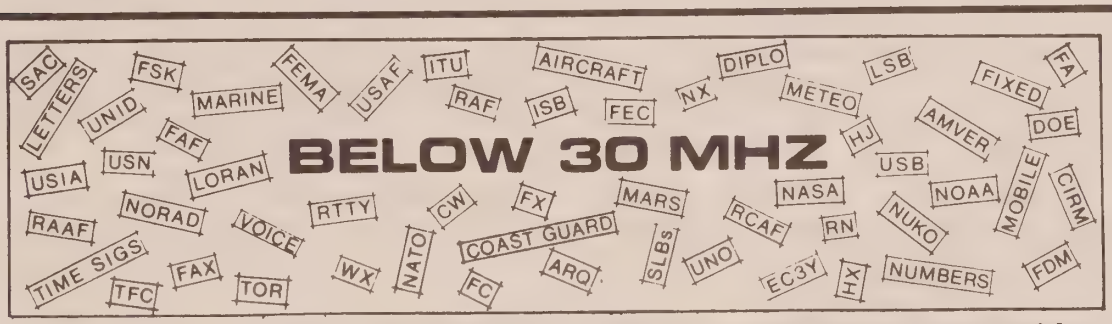
I just received the Scannerworld 1990 Spring catalog. They have some scanner models that I have not seen before and also some very low prices. In addition to scanners, they stock two way radios, radar detectors, antennas and CB's. For more information you can call (518) 436-9606.

Those of you who do not own a handheld scanner should think about purchasing one. Last Saturday my Bearcat 205XLT provided heightened interest to an already dramatic situation. While traveling to a nearby shopping center, I passed a Fire-Rescue ambulance, a pumper truck, and four sheriff's deputies parked on adjacent sides of an intersection. Both the firefighters and paramedics seemed to be waiting for something. The deputies were either in their cars or standing by them, radio in-hand. I assumed it was an accident (or what remained of one since I didn't see any damaged vehicles). Since I had my handheld with me I turned it on. I soon found out that everyone was waiting for something - THE SWAT TEAM! It seems that the resident of the corner house had already shot himself once. He was now threatening to kill himself and anyone who came after him. This standoff went on for several hours and I was able to monitor the whole thing from beginning to end. I passed the site several times, the crowd getting larger each time. The SWAT Team finally resorted to Stun Grenades as they stormed the house. The man was found barricaded in his attic and was taken to the hospital.

I mention this incident in detail because none of the aforementioned was given much play by the local media. They reported the bare bones while I felt that I had been on the inside of the whole operation.

A police auction is a good place to begin looking for an inexpensive handheld scanner. Your local police department can provide you with information regarding their periodic auctions of confiscated and found property.

That's all I have time for this month. See you next month.



This column is for HF AM, CW, SSB, RTTY and FAX reception reports, notes, articles, and questions related to HF utilities. Services covered in this column include aeronautical, coastal/marine, weather, government, military and 'spy' stations—essentially everything except broadcasting, CB and amateur radio. Send reports to:

Hugh Stegman, 4354 Coolidge Ave, Los Angeles, CA 90066

U.S. Panama Operation:

1989 came to an end with more HF wildness, this time the Panama invasion that began around 0530 UTC on 20 December. I got to hear it all start, when "Albrook" (Albrook Air Base, near Panama City), began repeating a taped YL voice on 8993 kHz USB, with this warning:

"Attention all aircraft. Hostile operations have begun in the Republic of Panama. Do not enter this area, as your safety will not be guaranteed."

Nothing coded about THAT! This frequency stayed busy for days, with many MAC (Military Airlift Command) aircraft working Albrook, or running patches to "Format" (21st AF, NJ), "Furious" (MAC Southern Command at Albrook), and MacDill AFB in Florida. Other frequencies monitored were 8989, 11126, 11176, 11246, 13215, 15015, 18011 and 18019, all USB and used by various U.S military services.

There were also reports of U.S. tactical comm heard up here via low-VHF skip. Most of this was scrambled. I am reminded of the famous Rommel story, in which an important German operation was compromised after 29 MHz skip made some of his WW II Afrika Korps comm audible in the U.S.! Lucky for our side...

At about the same time things were getting hot in Panama, I also caught USCG "Rescue 1603" working "Honolulu Rescue" on 8984 kHz. This aircraft was en route to the distressed fishing vessel "Won Key", (phonetic spelling) which was dead in the water somewhere near Hawaii. I could also hear the skipper on 8291.1, arranging a rescue with USCG and "Coast Guard Auxiliary Radio". The USCG auxiliary sent out a ship to tow the "Won Key" back to the Islands, while the EE speaking skipper (who had a CC or JJ accent) stayed on channel. I wanted to listen more, but there was a war on. Quite a night!

More Hugo freqs:

Lots of good contributions to get to. First comes from Maarten in Holland, who not only copied the very first emergency comm out of St. Croix (by "Fox Paw 2" of the USVI Air National Guard), but got a QSL letter out of them! This was on 19290 kHz, where they were working WGY 903, at the FEMA HQ in Olney, MD. Also on net were "Fox Paw 1" at the Martin ANG station in Alabama, and "Quixote", the 143rd ACW out of Puerto Rico. Fox Paw 2 was one of the few stations to survive the storm, and was only running 110 watts (from a Harris transceiver) into a dipole. This makes it a good catch in Europe! What's more, FEMA also QSL'ed the intercept, at 2130 on 25 September! This is a real piece of utility work here, and I am glad Maarten picked my column to submit it through.

A few weeks later, on 15 November, Maarten heard "Subsonic 01" through "03" on this same freq, with storm-related traffic (this time some tornados). Maarten wonders which agency this might have been. I do not know. This frequency is a new one, and a real find. The ID's sound like USAF, though FEMA is obviously using this channel too. More listening is in order.....

Maarten also heard Hugo traffic 29 September on 13996 kHz, an Army MARS freq that is also listed as 13995.3, with control station "AAR2NP" and several other MARS prefixes from various services. He notes, and I agree, that these sound like special callsigns.

Finally, on 3 and 4 October, FEMA stations WGY 917 and 912 were heard on 19757 kHz, working several other FEMA stations. And, in non-Hugo traffic, a good U.S. Army net was found on 9958. Nice stuff!

More from Grunge Beach:

The outer shore of HF continues to attract attention in this period of hot propagation. Chuck (IL-141) has traced most of the radiotelephones to Mexico, where (we both suspect) they are maintained privately by resort hotels. He's also heard SAC on 30.60 MHz, complete with "Skyking" and "Skybird" traffic! This is most definitely worth checking out -- I don't think it's a harmonic or an image (though I *was* wrong on La Voz del CID...).

Russ (MI-002) has heard a similar, SS radiotelephone on 29815, a CW marker on 25260 (could be a fixed station - similar ones are in Denmark and RSA on nearby freqs), and CB-type activity on 25335 and 25615. The latter was apparently an interesting hunting expedition. Russ has also been straightening me out on all the Michigan traffic I've been hearing on our CHP frequencies around 42 MHz. There's been a lot of it, and it's been good, but that's another column.

More space shuttle freqs:

The last Discovery mission had many amateur rebroadcasts of the NASA audio from Goddard Space Flight Center. This includes all voice up- and downlink, plus various Mission Control announcements and maybe a press conference or two, depending on which NASA channel is being repeated. With the improved TDRSS system coming online, there's a lot more to hear. This column runs about when the Hubble Space Telescope is going up, and a lot of people are holding their breath on that one.

In the future, try 3860, 3960, 7185 (all LSB), and 14295, 21295, 21390, 21395, 28650 USB. You ought to hear something on one of these, provided the crews are actually talking. Some missions are more talkative than others, but keep trying. Also check local 2 meter ham repeaters.

Propagation delays...

One expert claims a link between solar peaks and bad virus years. I have my doubts, but in any event the same illness that caused the lack of a March column also got me way behind on my correspondence. I intend to answer it all, so please keep waiting. Much of the info went into this column, so it was appreciated. I also appreciate the SASE's and "green stamps". Also remember that you can get Internet mail to me through their CompuServe gateway (ID # 71460,2270), or at driver8@coriolis.uucp and denwa!stb!driver8. There's more good stuff to get into next month. TNX ES 73!!!!!!!!!!!!!!

Log for April (nothing bogus this year):

218.0	A2	12/09/89	1048	"CLB" non-directional aero beacon	+
248.0	A2	12/09/89	1052	"VL" non-directional aero beacon	+
5598.0	USB	01/31/90	0521	ATC backup to 8825 (ICAO NAT-A)	e
6505.0	CW	12/04/89	0609	"VVV DE IDR3" mkr (Rome/ new fq)	e
6505.5	CW	01/29/90	0549	"VVV DE KPH" mkr (S.F./ new fq)	e
6506.4	USB	12/04/89	0614	"Wellington" (ZLW, NZ) ship TELCOM	e
6553.0	USB	12/04/89	0647	"United 816" (Pacific enroute fq)	e
6738.0	USB	01/29/90	0535	USAF "McClellan" & "Elmendorf"	e
6761.0	USB	12/20/89	0840	SAC wx	+
6761.0	USB	01/23/90	0611	SAC "Doom 64" wkg "Mudbug Control"	e
				[Same ID's hrd in 7/89 by MO-117 - ed]	
8891.0	USB	01/15/90	0626	"Delta 6105" wkg ATC (ICAO NAT-D)	e
8972.0	USB	12/20/89	0608	USN "12M" wkg "8AA", some "green"	e
11090.0	R3E	01/14/90	1820	VOA Delano, CA fdr/ PP Af. svc.	e
11267.0	USB	01/09/90	0245	USN "7WN" wkg "2AJ", order wire	e
14900.0	RTTY	12/03/89	1322	EE/ TASS nx feed via Cuba (425/50)	+
22136.4	USB	12/03/89	1835	Simplex ship/shore tfc	+
25308.0	CW	12/06/89	1611	"CQ DE.." mkr **[LFR, Norway - ed.]**	+
26450.0	RTTY	12/06/89	1626	GDR diplomatic mail,then 5L (170/50)	+

e = editor + = Lance VT-005

CANADA

Send Canadian frequency information, radio system details and other information relating to Canadian monitor listening and questions to:

Rob Berezowski, 50 Newstead Ave, Regina, Saskatchewan, Canada S4X 1H2

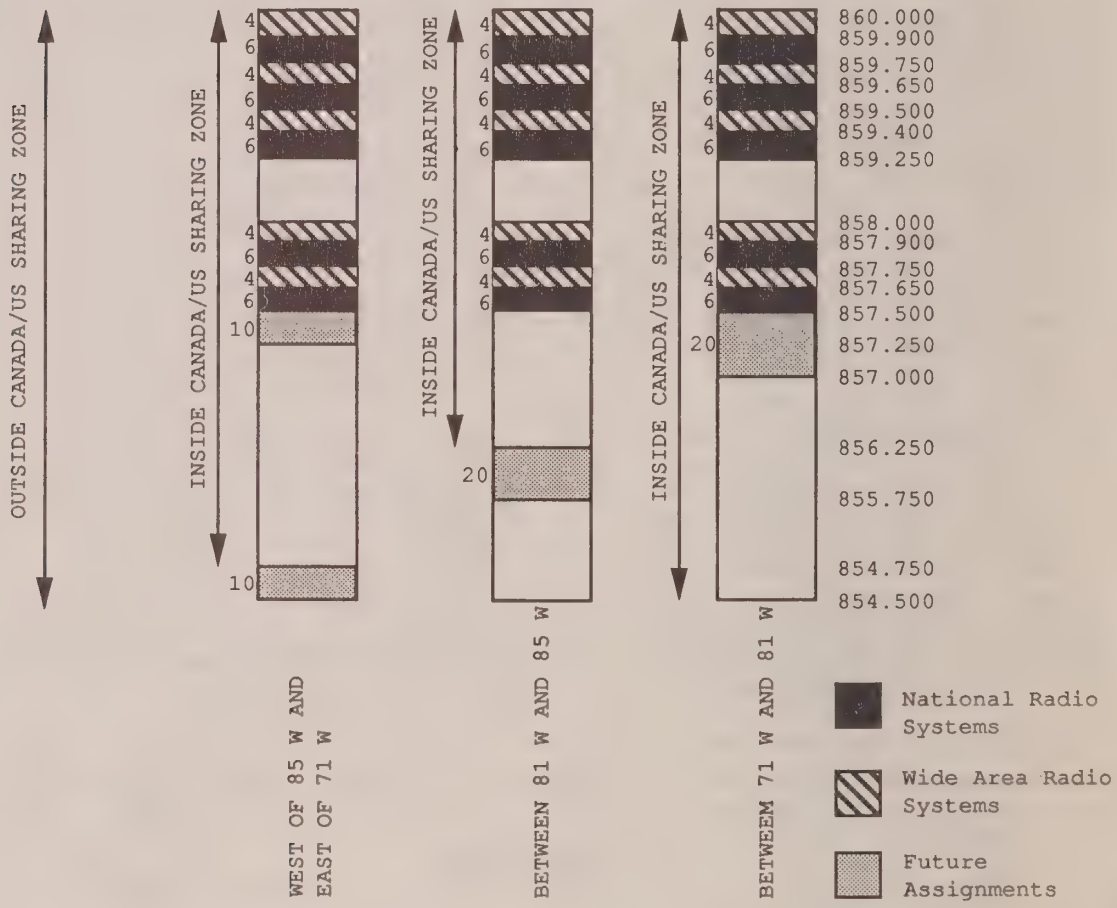
Greetings everyone and welcome to the April 90 Canada column. We were relaxing in the sun here, because our January this year was much warmer than usual. Quite often the temperature was at or near the freezing point. Now though, a fierce storm has blown through, and now we're into the minus 30s. I'm still trying to get everything in my study sorted out. It's taking a lot longer than I expected.

I have not talked to Carol about this yet, but it seems that the January 90 RCMA newsletters mailed to Canada went astray somewhere in the Post Office. I got both my January and February issues on the same day, namely January 16th, but the January issue was postmarked in Silverado on December 14. The February issue was posted January 11, and only took five days by First Class Mail. This sort of thing has happened before, but there is no way to tell where the newsletters got tangled up (either in Canada or the United States). If any member hasn't got their January newsletter, please write to Carol

in Silverado for a replacement copy.

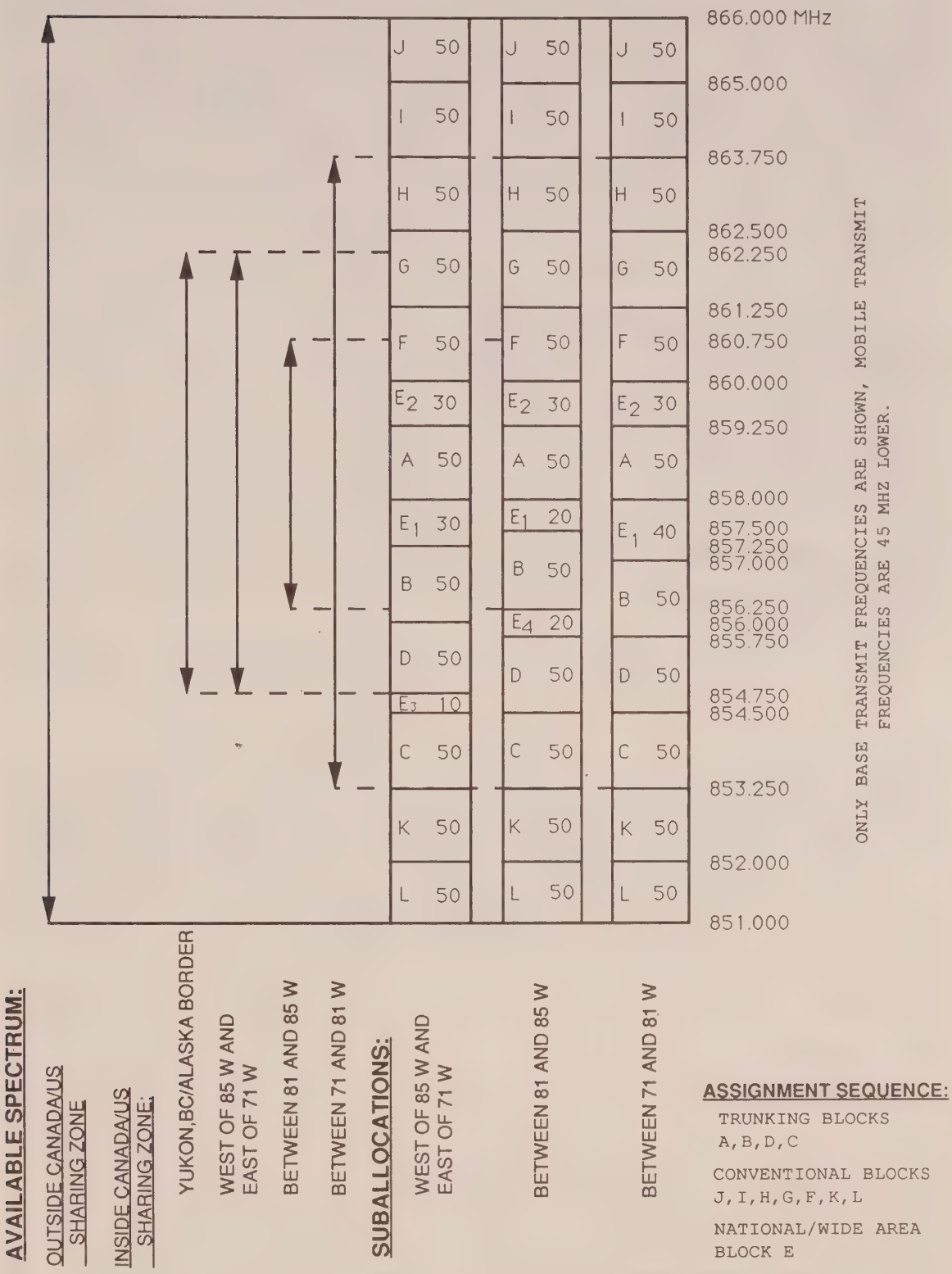
We start off this month talking about 800 MHz radio systems. With this column I am including two charts that I drew up on a Macintosh SE computer at work, both detailing Canadian 800 MHz spectrum allocations. The main chart, entitled "Canadian DOC Spectrum Allocation Plan 851-866 MHz" is really an enhanced version of a chart in DOC document SRSP 502, which I printed in the October 89 Canada column. Using the drawing capabilities of the Macintosh, I have produced a chart that I hope is easier to use, because the chart lists the base transmit frequencies, whereas the SRSP chart lists mobile transmit frequency. This eliminates the need to keep having to add 45 MHz to the chart frequency. The other chart is entitled "Canadian DOC 800 MHz National/Wide Area Radio Systems Spectrum Allocations." That's a Rob Berezowski original, and summarizes the suballocation plan for Blocks E1 through E4. I gave the same information in table form in the October 89 column. Remember, all Canadian 800 MHz allocations are on the 12.5 kHz split frequencies, with 25 kHz spacing. For example, Block A starts at 858.000 MHz, but the first assignable frequency would be 858.0125, followed by 858.0375, 858.0625, and so on. Please use these charts along with the information I gave in the October 89 column. I would suggest that the members photocopy these charts from the column and keep them as a handy reference. I'm posting mine on the wall near my radios. I would also advise all members to obtain a copy of SRSP 502 from their nearest DOC office. The use of the 800 MHz band is rapidly growing. An example is the new Regina Police 800 MHz trunked radio system.

CANADIAN DOC 800 MHz NATIONAL/WIDE AREA RADIO SYSTEMS SPECTRUM ALLOCATIONS



According to an article in the Regina Leader Post, the Regina Police Dept have signed a contract for a $1.25 million radio system from Motorola Canada Ltd. The system is a trunked system, and I am assuming that it is in the 800 MHz band. I'm not sure, but I think the system would be similiar to the existing Motorola Privacy Plus 800 MHz trunked system operating in Regina. The article suggests that at some point in the future, all of Regina's emergency services (police, fire, ambulance) will share the new system, but this is only being talked about right now. This kind of amalgamation would be the first in Canada, at least for a major city. Presently the Regina Police operate a 7 channel UHF (413/418 MHz) radio system. The article goes on to say that the new system cannot be monitored by scanners. As Harry (CANA- 074) said in a letter (he also heard about the new system and wrote me about it), "If we had a dollar for everytime we've heard that, we'd all be rich." I don't have any more information on the new system, but I will keep you all informed. This new system will make Regina one of the very few municipal emergency services in Canada operating on 800 MHz trunked radio systems. Presently I know of only the Delta, BC Police, the Richmond, BC Fire Dept, and Montreal's Ambulance service. I can guarantee you that in the next few years we'll see a migration to 800 MHz as older radio systems give up the ghost and agencies buy brand new 800 MHz equipment.

CANADIAN DOC SPECTRUM ALLOCATION PLAN 851 - 866 MHz



This month I ran across an article that was rather disturbing to me. It seems the paging services in Toronto have been having a very difficult time with what the article calls "hackers." The article appeared in the Fall 89 issue of Radiocomm in Canada (a trade journal for the Radio Communications Carriers (RCCs) in Canada. One group in Toronto, called "Scannerville," stole paging customers' voice mailbox numbers by listening to one company's frequency. Between 50 and 60 people then disrupted paging company operations by constantly calling these numbers and leaving messages, mostly obscene. The heavy volume of calls sometimes shut down the paging system, and created enormous bills for the legitimate paging customers. A two-month undercover operation by the Metro Toronto Police Force resulted in charges of mischief and theft of communications being laid against seven people. One was fined $500, another $150, and the others received suspended sentences with one year probation.

The others have not yet appeared in court. Another group, called "Pagerville," somehow obtained confidential paging service numbers (including customer retrieval numbers), and tied up the paging terminals with their messages. According to the Metro Toronto Police, most of the paging companies in Toronto have been subjected to this form of piracy. However, the Metro Police can now monitor the paging systems and gain information about anyone involved in mischief. Bell Canada can and have traced telephone calls to paging systems, giving the police names and addresses of the "hackers." There seems to be a lot of lonely people out there. I doubt that any of our members would be involved with something like this (at least I sure hope not!), but I'm bringing this article to your attention because this kind of illegal activity can create a bad image for all monitoring hobbyists.

My first letter this month comes from Thomas (MI-216), who has made several recent trips to the Sault Ste Marie, Ontario area. He sent in a good list of frequencies monitored on his trips.

Ontario Provincial Police		42.060
		42.220
		42.540
Sault Ste Marie Police	142.830	/ 138.810in
Common Channel	142.770	/ 138.750in
Sault Ste Marie Fire Department	153.830	/ 154.370in
Sault Ste Marie Ambulance	150.485	/ 149.215in
	149.605	/ 149.170in
Sault Ste Marie Emergency Measures		148.655
Sault Ste Marie Public Works		169.305
Sault Ste Marie Transit Service		168.720
Radio Amateur		146.880
		146.940
		147.150
Weatheradio Canada – Sault Ste Marie		162.400
Bell Canada		165.510
Bell Canada Mobile Telephone	454.850	/ 459.850
Algoma Steel Plant		168.750
Taxi (Unknown)		150.935
		163.230
		165.930
		166.185
		172.640
Unknown Phone Patch	413.9875	/ 418.9875

Thanks for the list, Thomas. If you get back to Sault Ste Marie again, I hope you can update the list for us. Thomas also asked if there were any books with Canadian frequencies listed. He is particularly interested in frequencies for the Thunder Bay area. As opposed to the United States, there are very few scanner books published here. The only general book that I can recall is the Haruteq volumes, for Ontario and Quebec. They are very good books, but so far only cover those two provinces. Information on these books can be obtained from Haruteq, P.O. Box 9268, Stoney Creek, Ontario, L8G 3X9. As for Thomas' Thunder Bay request, I have a few frequencies that I will send him, but they are kind of old. I was hoping that some of the members out there have some frequencies they can send to either Thomas or myself. How about it, members?

That is all for this month. Next month I'll have an update from Saskatchewan, as well as some information for Brandon from a new member. Until next time, best wishes, everybody.

COASTAL and INLAND WATERWAYS

This column is for VHF-FM band and related HF frequencies, information, articles, and questions that relate to coastal and inland waterways radio communication. This includes private, commercial, and Coast Guard to civilian vessel communications. It also includes private business and government frequencies that depend on or are related to the activities of surface craft, though these frequencies may also go in the Commercial Communications, Below 30 MHz, and Federal Government and Military columns as appropriate. Harbor Patrol and firefighting frequencies are welcome here and in the Public Safety columns. Coast Guard freqs other than those used to communicate with civilian vessels must go in the Federal Government and Military column.

Emmett L. Baxter, Jr., 4122 Granby St., Norfolk, VA 23504

Hello and welcome to your Coastal and Inland Waterways Column for April 1990.

First I would like to thank (Robert-SC-???) for his Christmas Card and comments. Robert will also send in some information on his area soon; We look forward to printing his information.

Second I would like to thank (Curtis-TN-???) for his letter and comments. I am still faithfully using his scanner carrier that he sent

me and I really like it. It make outdoor scanning so much easier. His address was listed in this column a couple of months ago. Write him for his scanner aids list; you won't be sorry.

Our next report comes from (Sid-Cana-109). Here is Sid's letter:

Read your request for marine information in the January 1990 newsletter. Well my area Vancouver is a very busy sea port city with lots of marine activity so the radio is very active here. I will try and help you on one area of activity at the present time.

Seabus operated by BC Transit are two identical built 400 passenger ferry boats "Burrard Beaver" and "Burrard Otter". They operate on 13 minute trips from North Vancouver to Downtown Vancouver since 1977. They can be heard on (ch.9) 156.450 or (ch.12) 156.600.

False Creek Ferries are two companies Aquabus and Granville Island Ferries LTD. that operate small mini ferries that run on batteries and carry maybe 15 passengers each from various locations in False Creek to Granville Island. They can be heard on (ch.72) 156.625.

BC Ferries is the largest ferry operator in probably all of North America. It has a fleet of both large and small vessels. They have their own VHF Channel (155.910 mhz.) plue portables on 458.6375 mhz. which are used for loading trucks,cars & etc. on the ferries. They can also be heard on two vessel traffic channels (ch.11) 156.550 mhz. and (ch.12) 156.600 mhz.. Also on board some of the larger boats they have public pay phones which can be heard on the following frequencies: 454.1375,454.2375,454.3375,454.4000,454.5000 and 454.6000.

The large Cruise Ships that run between Alaska and Vancouver can be heard on normal marine channels and most of them berth at Canada Harbour Place. 411.9875/416.9875 & 412.4625/417.4625.

The port of Vancouver Police are on 410.2375/415.2375 with the harbour master on 452.4875/457.4875.

All large vessels into and out of Vancouver Harbour must have a pilot onboard. They can be heard on (ch.17) 156.850 mhz. sharred with Cates Tugs that help berth the large ships and use (ch.77) 156.875.

Tymac is a watertaxi business that picks up or drops off the pilots from ships. They use (ch.10) 156.500.

Vancouver has no fireboat but has what they call super fire pump trucks stationed at selected firehalls near the harbour. Infact its only fireboat was sold to San Francisco last year just after the earthquake.

Vancouver City Police have one policeboat the VPD-99 which is heard on their channel 1 (143.085)(R). The RCMP have a few vessels that are on their 140.430 mhz. simplex channel and identify as example (52 Gulf 1 to XJ-43 Vancouver). They can also pop up anywhere on most lower mainland RCMP channels and marine channels.

The port of Vancouver Police have one boat that is heard on their cannel 410.2375 mhz. (R) plus the marine regular channels.

One thing of note when the three above mentioned Police Deptartment boats are all working together I have found them on 156.400 mhz..

I hope this will be of some help to listeners on a visit to my city. Perhaps some other reader will add other information for Washington State and also their home area.

Well Sid also sent in some travel folders on the area and the ferries. The following is a list of ferries.

FERRY NAME	CARS	FERRY NAME	CARS
Albert J.Savoie	16	Bowen Queen	70
Dogwood Princess II	00	Garibaldi II	7

Howe Sound Queen	70	Kahloke	30
Klitsa	26	Kwuna	25
Mayne Queen	70	Mill Bay	16
Nicola	16	Nimpkish	16
North Island Princess	50	Powell River Queen	70
Princess of Vancouver	138	Quadra Queen II	30
Queen of Alberni	295	Queen of Burnaby	192
Queen of Coquitlam	362	Queen of Cowichan	362
Queen of Esquimalt	376	Queen of the Islands	40
Queen of Nanaimo	192	Queen of New Westminster	192
Queen of the North	157	Queen of Oak Bay	362
Queen of Prince Rupert	80	Queen of Saanich	376
Queen of Sidney	138	Queen of Surrey	362
Queen of Vancouver	286	Queen of Victoria	286
Quinitsa	50	Quinsam	70
Saltspring Queen	36	Tachek	30
Tenaca	18	Vesuvius Queen	32

My thanks to Sid for his big report on the ferries and info on the Vancouver area. I hope to hear from him again soon with more information.

Well thats it for this month.<Send in info> See you next month.

COMMERCIAL COMMUNICATIONS (and Municipal Utility Companies)

This column is for reporting frequency and radio system information for the following commercial communications: businesses, forest products, petroleum industry, special industrial, manufacturers, motion picture industry, security (private patrol, detective agencies, campus security & police, amusement park & stadium security, shopping center & mall security, plant/business/hotel security, etc.), General Mobile Radio Service (GMRS), mobile phone/RCC & paging, trucking firms, bus lines, taxi cabs, tow trucks, utility companies (private & municipal water, power, electric, gas, telephone, etc.) and all school & college related frequencies.

Send monitoring information to:
Cliff Polkinghorn, 286 Greenhouse, #216, San Leandro, CA 94579

Welcome to this issue of Commercial Communications. I'm afraid it is a bit short this month due to lack of contributions. But I'm not kicking--you folks have been great in the past and will be again, I'm sure. Now on to this month's column.

From Kent (WY-005):

TORRINGYON, WYOMING AREA

151.775	Platte River Valley Cablevision	467.175	Holly Sugar Co. (Mill OPS)
466.725	Panhandle Coop (Input)	451.350	United Telephone Co.
461.725	Panhandle Coop (Output)	811.8625	Federal Express (Input)
464.300	Anderson Conoco	856.8625	Federal Express (Output)
158.190	Goshen Irrigation District	464.300	Olson Tire Co. (Input)
469.700	Holly Sugar Co. (Ag. OPS)	469.300	Olson Tire Co. (Output)

From Cliff (Editor) (CA-AL-029):

ALAMEDA COUNTY (CALIFORNIA) AREA

935.6875	Regional Ambulance Co.	151.865	Phill Hill Shell (Oakland)
851.4875	Allied Ambulance Co.	151.925	High Street Towing (Oakland)
48.52	East Bay Municipal Utilities Dist.	154.515	Group W Cable Inc. (Newark)
43.0	Fremont Towing	154.570	Mervyns Stores (Hayward)
150.845	Paul Marsh Towing (Livermore)	156.450	Pan Pacific Dev (Alameda
151.625	International Security (Oakland)	157.680	Goodwill Cab (Alameda)
151.655	ABC Security (Oakland)	452.275	Zina Cab (Oakland)
151.715	So. Co Security Patrol (Hayward)	460.900	Baker Protective Service
151.745	Henry's Service Station (Oakland)	460.925	Bay Alarm Co. (Oakland)
151.775	Oakland Motor Escort/Patrol		
151.835	Tom King Detective Agency/ Patrol (Oakland)		

That's it for this month.

contact info wanted

This column has two purposes: to help members contact each other, and to help members obtain directly from one another information on various subjects related to two-way communications monitoring. If you would like to meet, converse, or correspond with other members by telephone, letter, or cassette, this column is the place to state your interest. Remember—those who respond will do so directly, so be sure to provide your phone number, the best time to be called, and/or your address. Write to:

Scott Mattson, 2820 Bridge Ave, Point Pleasant, NJ 08742

Requests for copyrighted material or information considered 'sensitive' by RCMA will not be printed in this column.

CONTACT WANTED: I am seeking to correspond with and meet other scanning enthusiasts in Canada, particularly the Ottawa/Hull National Capitol Region. Hopefully, we can share frequencies and scanning tips.
MARK DORE (CANA-144) 2197 Calder Ave., Ottawa, Ontario, Canada K2C 0Y1

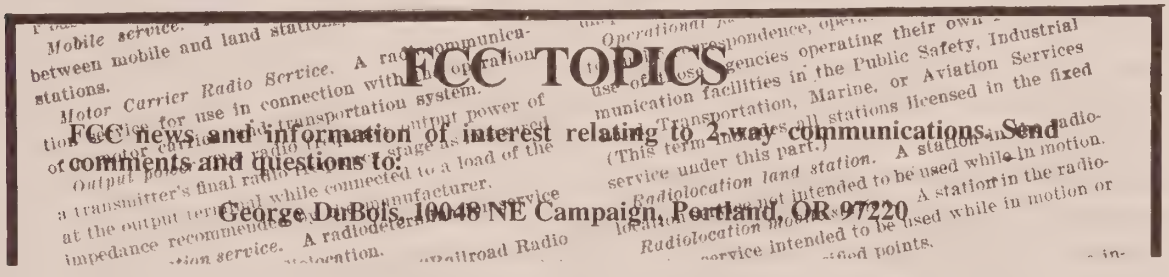
INFO WANTED: A die-hard race fan is looking for any and all frequencies used by any S.C.C.A. and I.M.S.A. race teams. I am also looking for frequencies (and their uses) used at various race tracks (ie. Road Atlanta, Daytona, Sebring, Charlotte, etc.). I will trade info that I have on file. Any help is appreciated.
SCOTT BENDER (IL-434) 117 LaRue Street, Park Forest, IL 60466

CONTACT WANTED: I am looking to correspond with any members in the Portland/Beaverton area to exchange frequencies, 12 codes, and other related information.
JERI KUBITZ (OR-1ØØ) P.O. Box 94, Beaverton, OR 97075

INFO WANTED: Would like to correspond with other members who use or are interested in Radio Controlled Devices. Am interested in devices operating in the 75 MHz range. Would like to hear from anyone with knowledge in this area. Also, has anyone ever thought of modifying the 800 MHz circuit for better sensitivity on the Uniden 200XLT?
LOU SHIRLEY (NJ-253) 220 Route 18, East Brunswick, NJ 08816

CONTACT WANTED: I would like to correspond with any member around the Fresno County area to trade information on frequencies, etc. Any info on any topic would be most appreciated.
GUY LEE (CA/FR-Ø14) 2243 Cherry Street, Sanger, CA 93657

INFO WANTED: Information on scanner frequencies used in Canada, especially Manitoba. Also seek addresses and info on mail order scanner dealers in Canada. Lastly, information related to modifying older scanners.
C TAYLOR (CANA-142) 55 Canada Cres., Brandon, Manitoba, Canada R7B 2Z7


FCC TOPICS
FCC news and information of interest relating to 2-way communications. Send comments and questions to:
George DuBois, 10048 NE Campaign, Portland, OR 97220

The FCC has amended its rules to allow applicants for licenses in the Private Land Mobile services to begin operation immediately upon filing their application. The Conditional License will be valid for a maximum period of 180 days, although it does not guarantee that the license or frequency applied for will be granted. The Conditional license is similar to the temporary license now permitted for new licensees of existing, community repeaters or transmitters. It goes further, though, allowing operation of most stations upon completion of the frequency coordination process and upon submitting

application to the FCC. Conditional licensing will be allowed for applicants for all frequencies below 470 MHz, plus the 929 - 930 MHz paging frequencies, these bands being those in which frequencies are shared among users. They declined to allowed Conditional licensing in the 470 - 512 or 800 MHz bands because channels in these bands are assigned on an exclusive basis to eligible users. A fundamental requirement for implementation of Conditional licensing was that the procedure would be used for those applications that are routinely granted and seldom challenged. To allow introduction of new stations on exclusive frequencies without Commission approval would be highly disruptive.

To qualify for Conditional licensing, the applicant will have to complete a new, "self-certification" form (Form 572C) and retain it with his station records. The proposed station must be outside the area in which coordination with Canada is required, must not require an Environmental Impact Statement, must have an antenna structure less than 20 feet above ground or an existing structure or have FAA approval, and must have the approval of a frequency coordinator. Applications for modifications or for transfer of existing station licenses will also be eligible for Conditional Licenses, as well as applicants for itinerant frequencies. The station will use the call letters "WT", followed by their seven-digit local telephone number.

Mainly of interest to monitorists in the nations three largest cities so far, the FCC has approved the Regional Plan for use of the public safety frequencies in the 866 to 869 MHz band in Region 5 (California - south of the northern boundaries of San Luis Obisbo, Kern and San Bernardino counties) and Region 54, the counties in the four-state area surrounding Chicago. When the FCC allocated the 866 -869 MHz Public Safety band a couple of years ago, they decided that before assigning frequencies in the band, a National Plan for their use would be adopted. As a result of the recommendation of the National Public Safety Planning Advisory Committee, the Commission adopted a regional planning concept and divided the country into 55 regions, mostly along state lines. Each region is to develop its own plan for the most efficient use of this spectrum, before assignment in that region can begin. The plan must include a general description of how the spectrum is to be allotted among the various users in the region, an explanation of how the eligible users requirements were assessed and met, an explanation of how eligible users needs were prioritized in areas where all users needs can't be met, details of the coordination procedure with neighboring regions and a description of the extent to which system design, frequency reuse, and technology such as trunking, will be used to maximize spectrum efficiency. When a plan is submitted it is placed on public notice and comments accepted for 45 days. When approved by the Chief of the Private Radio Bureau and the Commission Chief Engineer, assignments may begin. So far, plans have been accepted for Region 8 (Metropolitan New York City and surrounding counties), Region 40 (Dallas, Tx. and surrounding areas) and now Southern California and Chicago.

The California plan was accepted last Nov. 8, and contains a detailed matrix plan for assignment priority, and technical standards that require the use of continuous coded squelch, downtilt antenna patterns and directional antennas, limited power and stricter receiver standards along with maximum use of 12.5 kHz offset channels. The use of the popular high-elevation mountain-top sites in the L.A. area will be prohibited, except for mutual aid frequencies. The Chicago plan states that sufficient channels are available to satisfy all applicants' needs in the area at this time, unlike Southern California. It includes details of a survey of all entities in the region, conducted in 1988. The Planning Committee hired a private consultant to compile a

computer-generated assignment plan, based on the present and future forecast population figures for the area. The plan makes 435 proposed assignments on 235 channels. Each county receives at least 5 channels and three of the four state governments in the area get 30 channels. Chicago receives 20. A number of other plans have been accepted and placed on public notice, including Philadelphia and Colorado.

The FCC has released a Notice of Proposed Rulemaking that will establish rules for land mobile use of the frequency band 220 to 222 MHz, the band that was reallocated from the Amateur Radio Service in late 1988. The proposal is based loosely on the recommendations of United Parcel Service in its Petition for Rulemaking in this matter, plus the comments by interested parties on the Petition.

The band will be divided into 200 channel pairs, spaced 1 MHz apart, with 5 kHz spacing (220.0025, 220.0075..., paired with 221.0025, 221.0075..etc.). The frequencies would be available to all eligibles in the Private Land Mobile services, including commercial (for-profit) communications providers. They will also be shared with the U. S. Government. Groups of channels will not be set aside for any category (Business, Public Safety, etc.), but a number of channels would be reserved for non-commercial (private) systems for a period of five years.

Three different channel plans are proposed for comment, each setting aside varying numbers of frequencies for specific types of systems. All three plans reserve channel blocks for either nationwide or local/regional users. The preferred plan sets aside two groups of 10 channels each and eight groups of 5 channels each for nationwide systems. The 10-channel and two of the 5-channel blocks will be for non-commercial users only (companies that build a system for their own use). Four of the 5-channel blocks will be available for commercial providers and the other two will be allotted for U.S. Government nationwide use. (The FBI and the Dept. of Energy have both expressed a requirement for nationwide use of channels in this band.) Forty channels at the upper end of the band (220/221.8025 through 220/221.9975 MHz) would be reserved for single-channel use by private users, although after ten years commercial providers could apply for unused channel pairs. To encourage development of narrow-bandwidth data systems, 30 of these 40 channels will be reserved for non-voice analog or digital data transmissions only (although five of these channel pairs might be allocated for a proposed personal emergency locating transmitter service). Between all these groups of frequencies would be twenty groups of five channels each, available for trunked systems, for both commercial systems and private users, and the U.S. Government. One of the alternative plans doesn't allocate channels exclusively for trunking, but doesn't prohibit their use as such. The third plan reserves 100 channels for digital use only, including the use of "packet" (data burst) technology.

Applicants for the commercial nationwide channels would have to certify that they have the financial resources to construct their system and would have strict time limits in which to place the system on the air or forfeit their license. Their license term would be ten years. For other licensees, the term will be five years, the same as all the other Land Mobile services. There will be no loading standards for these systems. Fixed use would be allowed on a secondary basis, but not one-way paging.

Instead of frequency deviation or other methods of specifying bandwidth, the new rules will impose an emission "mask". Emissions extending more than 1.8 kHz from the center frequency of the channel must be attenuated, up to at least 70 db at 2.5 kHz and 80 db at 5 kHz. Frequency tolerance will be .0001% for repeaters and base stations and .00015% for mobile units. Maximum

power proposed is 200 watts PEP, with corresponding decreases with increased antenna height. Since the input and output frequencies will be so close together, the proposal requires that repeaters and base stations that operate in the upper end of the band (220.7 - 221.0 MHz) be geographically separated from stations operating (receiving) in the lower end of the mobile - only segment (221.0 - 221.3). Otherwise, a strong base transmitter near 221 MHz would interfere with another stations (input) receiver if it is likewise near 221 MHz, the low end of the mobile-only range.

FEDERAL GOVERNMENT and MILITARY

Send non-aircraft-related frequency information for Army, Navy, Marine, Air Force, Coast Guard, and non-military Federal Government radio systems, and related questions to:

Dennis Biagioli, 1352 Shagbark Court, Carol Stream, IL 60188

Military aircraft frequencies and aircraft support-related frequencies should go to the Aircraft column unless they improve the overall submission to this column. HF SSB frequencies may be sent to this column if they benefit the submission; otherwise, they should go to the Below 30 MHz column. To improve continuity of fire communications, you may send USFS, OES, and BLM firefighting frequencies to Public Safety. Sensitive frequencies will not be published.

Happy early Spring. April is the time of year many of us start to seriously think about our vacation trips. How about you? Are you perhaps thinking of spending some time in one or more of our beautiful Rocky Mountain region National Parks? Well, you may have come to the right place!

CHUCK (CO-068) has very graciously send along the following beautifully detailed listings of these beautiful areas and historic sites of Colorado and Utah. So, let's get on to the frequencies at hand...

COLORADO

BENT'S OLD FORT NATIONAL HISTORIC SITE

166.350 166.950?

BLACK CANYON OF THE GUNNISON NATIONAL MONUMENT

Radio Channels

Ch 1	166.350			Simplex
Ch 2	166.350	166.950	97.4	Repeater
Ch 3	166.300	166.900	110.9	Sheep Knob Repeater (Curecanti NRA)
Ch 4	166.300	166.900	91.4	Sap Repeater (Curecanti NRA)
Ch 5	151.190	159.330		Div of Wildlife
Ch 6	151.400			Div of Wildlife
Ch 7	154.905			CSP 3

166.350 166.950 97.4 BCGNM - Shop (South Rim Campground)

COLORADO NATIONAL MONUMENT

Colorado National Monument is located within Mesa County. Its Headquarters are located in the monument near Fruita.

166.300 166.900 103.5 Lands End

CURECANTI NATIONAL RECREATION AREA

Radio Channels (Patrol)

Ch 1	166.300			Simplex
Ch 2	166.300	166.900	91.5	Repeater
Ch 3	166.300	166.900	110.9	Sheep Knob Repeater
Ch 4	155.475			NLEC

Ch 5	154.905	CSP 3
Ch 6	155.250	Gunnison SO, PD
Ch 7	156.800	Marine Ch 16
Ch 8	156.425	Marine Ch 68
Ch 9	157.100	Marine Ch 22A

166.300	166.900	91.5	Pine Creek Mesa
166.300	166.900	110.9	Sheep Knob
419.625			? ? ? ?

DINOSAUR NATIONAL MONUMENT

166.375	166.975	CS	Round Top Mt ????

Station 1	KAC790
Station 2	KAC793

FLORISSANT FOSSIL BEDS NATIONAL MONUMENT

167.025	?

GREAT SAND DUNES NATIONAL MONUMENT

166.350	166.950	cs	Vistors Center	KAC766
173.7625?				

HOVENWEEP NATIONAL MONUMENT

Administrated by Mesa Verde NP, see below.

MESA VERDE NATIONAL PARK

170.050	169.400	cs	Park Point

ROCKY MOUNTAIN NATIONAL PARK

Rocky Mountain National Park is located in Larimer, Boulder, and Grand counties in Colorado, but has exclusive jurisidiction. Park Headquarters are located in Estes Park.

Radio Channel Numbers:

Channel 1	166.350			Simplex
Channel 2	166.350	166.950	100.0	Repeater Access
Channel 3	168.350			Law Enforcement Only

Base Station call signs:

AVC	=	Alpine Vistors Center	KAC715?
BME	=	Beaver Meadows Entrance Station	
GLE	=	Grand Lake Entrance Station	KAC718
ROMO	=	Park Headquarters Estes Park	KAC711
		Longs Peak Ranger Station	KAC724
		Fall River Entrance	KAC716

Radio Numbers:

100	Park Superintendent	500	Chief Naturalist
101	Asst Superintendent	501	Asst Chief Naturalist
102	Resource Mgmt Specialist	502	Naturalist
103	Research Biologist	503	Naturalist
200	Chief Park Ranger	503	Naturalist
201	Vistor Prot Specialist	800	Chief of Maintenance
202	Prot. Trng Specialist	805	Engineering Tech
210	North District Ranger	810	Roads & Trails Foreman
211	Fall River Tech	811	Eng Equip Oper Foreman
212	North Fork Sub Dist Ranger	812	Eng Equip Operator
213	Fall River Sub Dist Ranger	813	Eng Equip Operator
220	South District Ranger	814	Eng Equip Operator
221	Thompson River Ranger	815	Eng Equip Operator
222	Thompson Rvr Sub Dist Rngr	820	Maint Mech Gen Foreman

223	Wild Basin Sub Dist Ranger
400	West unit Manager
401	Admin Clerk
410	Frontcountry Ranger
420	Backcountry Ranger
440	West Naturalist
450	Maint Foreman
451	Auto Mech
460	Maint. Mech Leader
461	Maint. Mechanic
462	Maint Worker
470	Road/Trail Leader
471	Eng Equip Operator
821	Maint Mech Foreman
822	Woodcrafter
823	Carpenter
824	Carpenter/Sign Painter
825	Electrician
826	Maintenanceman
827	Maint Mechanic
828	Utility Systems Operator
829	Plumber
830	Maint Mechanic
831	Painter
832	Maint Mechanic
833	Sheet Metal Mechanic
840	Hvy Mob Equip Mechanic
900	Communications Officer

166.350	166.950	cs	West Side ?	
166.350	166.950	100.0	Twin Sisters Peak ?	
166.350			? Estes Park	KAC710
	166.950		? Estes Park	KAC710
166.350			Twin Sisters Peak	KAC723
	166.950		Twin Sisters Peak	KAC723
166.350	40?		Alpine Vistors Center	
417.825	166.350		Alpine Vistors Center	
	408.625		? Estes Park	KAC713
408.775			Twin Sisters Peak	KAC723
408.075			Denver	KAC726
411.825???			?	

YUCCA HOUSE NATIONAL MONUMENT

Not open to the public, Administrated by Mesa Verde NP, see above.

UTAH

ARCHES, CANYONLANDS NATIONAL PARKS NATURAL BRIDGES NATIONAL MONUMENT

Arches, Canyonlands National Parks, and Natural Bridges National Monument are administrated as one unit, with the superintendents office in Moab, UT. One repeater operating on 166.325, with an input of 166.925 is located at grandview point, on the island in the sky section of Canyonlands. This repeater covers most of these park areas. KOP700 series call signs are used by base stations within these parks. Each area of the parks has a hundred series of call numbers assigned to it:

100's
200's Arches National Park
300's Natural Bridges National Monument
400's Canyonlands NP, Island in the Sky District
500's Canyonlands NP, Needles District ? ? ?
600's Canyonlands NP, Maze District

1.610			Cresent Jct I-70 TIS	KOP728
166.325	166.925	cs	Grandview Point (Canyonlands)	

BRYCE CANYON NATIONAL PARK

172.500	170.100	CS	8070 Nr Inspiration Point

CAPITOL REEF NATIONAL PARK

168.575	169.550	123.0	???

CEDAR BREAKS NATIONAL MONUMENT

Administrated from Zion NP ??? Uses Zion System.

GLEN CANYON NATIONAL RECREATION AREA
RAINBOW BRIDGE NATIONAL MONUMENT

768 = Dispatch

156.425			Marine 68	
156.800			Marine 16	
171.675	172.400	cs		
171.675	172.475	cs	Navajo Mt	

GOLDEN SPIKE NATIONAL HISTORIC SITE

171.675			Local	

TIMPANOGOS CAVE NATIONAL MONUMENT

166.150			Local	KOJ755

ZION NATIONAL PARK

166.325	166.925	cs	?	

WYOMING

DEVILS TOWER NATIONAL MONUMENT

170.050	169.400	?	Devils Tower NM	

FORT LARAMIE NATIONAL HISTORIC SITE

FOSSIL BUTTE NATIONAL MONUMENT

170.050	169.400	?	Fossil Butte NM	

GRAND TETON NATIONAL PARK
JOHN D ROCKEFELLER, JR MEMORIAL PARKWAY

171.675	172.425	cs	Grand Teton National Park	Signal Mt	KOD702

YELLOWSTONE NATIONAL PARK

Park Headquarters and dispatch are located in Mammoth. UHF linked control/base stations located at the Mount Washburn Fire lookout. Two primary repeaters, and the bases on Mount Washburn, cover most of the park. The north and west areas of the park operate on 166.375, with a repeater input of 166.975. The east, and south areas of the park operate on 165.5875, with a repeater input of 164.800. Another pair is 167.150, with a repeater input of 163.125. This third pair is used mostly by the Student Conservation Corps (SCA), and has several repeaters using different sub-audible tones. Law Enforcement Rangers also have these channels. It appears the park service radio channels are numbered as follows:

	Rx	Tx		
Channel 1	166.375	166.375	North, West areas simplex	
Channel 2	166.375	166.975	North, West areas repeater	
Channel 3	165.5875	165.5875	East, South areas simplex	
Channel 4	165.5875	164.800	East, South areas repeater	
Channel 5	167.150	167.150	Special (SCA)	
Channel 6	167.150	163.125	Special (SCA)	[141.3]
Channel 7	167.150	163.125	Special (SCA)	[151.4]
Channel 8	167.150	163.125	Special (SCA)	[162.2]
Channel 9	167.150	163.125	Special (SCA)	[186.2]

Radio numbers appear to be assigned to park districts.

100's	HQ Staff ?
200's	Mammoth, Tower/Roosevelt, NE
300's	Madison & West
400's	Old Faithful area
500's	Grant / West Thumb

```
            600's   Lake, Fishing Bridge, Bridge Bay
            700's   Base Stations (see below)
            800's   Norris, Canyon area
            900's   ?


Base stations use call sign of the station.

            KOF 700          Mammoth Dispatch
            KOF 700 Bravo    Backcountry Desk              Ch 1 & 3
            KOF 700 Fox      Fire Desk                     Ch 1 & 3
            KOF 702          West Entrance                 Ch 2
            KOF 718          Mount Holmes                  Ch 2
            KOF 721          Mount Sheridan                Ch 4
            KOF 725          South Entrance                Ch 4
            KOF 728          Mount Washburn
            KOF 731          Bechler Ranger Station        Ch 4

        167.075          Yellowstone NP ???
164.800 411.775          Yellowstone NP        Link  Mt Washburn     KOF728
165.5875 164.800   cs    Yellowstone NP  Ch 4        Mt Sheridan     KOF721
165.5875 164.800   cs    Yellowstone NP  Ch 4        Mt Sheridan     KOF721
165.5875 411.775         Yellowstone NP        Link  Mt Washburn     KOF728
166.375  166.975   cs    Yellowstone NP        Nr Cooke City, MT
166.375  166.975   cs    Yellowstone NP  Ch 2          Mt Holmes     KOF718
166.375  166.975   cs    Yellowstone NP  Ch 2          Mt Holmes     KOF718
166.375  411.675         Yellowstone NP        Link  Mt Washburn     KOF728
166.975  411.675         Yellowstone NP        Link  Mt Washburn     KOF728
167.150  163.125  141.3  Yellowstone NP  SCA         Mt Holmes ?
167.150  163.125  151.4  Yellowstone NP  SCA             ? ? ? ?
167.150  163.125  162.2  Yellowstone NP  SCA         Mt Washburn
167.150  163.125  186.2  Yellowstone NP  Ch 9  SCA   Mt Sheridan

417.375  166.375   cs    Yellowstone NP        Link  Mt Washburn     KOF728
417.475  165.5875  cs    Yellowstone NP        Link  Mt Washburn     KOF728
```

Our thanks to Chuck for sharing his very thorough research! I'm sure many of you will find this useful in the future. And I appreciate such well formatted material which gives me more time to study to upgrade my amateur radio license so I can meet even more of you over the airwaves on "the low bands". If you have similar material for other such interesting and "touristy" locations, why not share it in this column? We'd all love to hear from you! Until next month...

INTERNATIONAL

This column is for reporting 2-way communications frequencies above 30 MHz, radio system details, monitoring experiences, and any other information relating to monitoring in countries other than the United States and Canada. Send to:

Rickey Stein, 456 Barrymore Place, North Brunswick, NJ 08902

While cleaning up and reorganizing old files I have found some information which has not been presented in this column before. Some of the data was temporarily lost in the shuffle and for others, I was asked not to publish until now. I also have some new information sent to me by my contacts in the United Kingdom. In an earlier column I told you that Band III had been opened up for land mobile use in the United Kingdom. Bank III are those frequencies in the range 176.250–214.750 MHz and the first allocations were given to British Rail. British Rail has been testing and then using these frequencies since the early part of 1986. We now have a list of the frequencies, channel numbers and channel codes for this system.

BRITISH RAIL TRUNK RADIO CHANNELS

DTI Channel Number	Transmit Frequency	Receive Frequency	British Rail Channel No.	Use Code
349	204.8500	196.8500	1	Traffic
353	204.9000	196.9000	2	Traffic
357	204.9500	196.9500	3	Traffic

361	205.0000	197.0000	4	Traffic
365	205.0500	197.0500	5	Traffic
369	205.1000	197.1000	6	Traffic
373	205.1500	197.1500	7	Traffic
377	205.2000	197.2000	8	Early Warning
381	205.2500	197.2500	9	Early Warning
385	205.3000	197.3000	10	Early Warning
389	205.3500	197.3500	11	Traffic
393	205.4000	197.4000	12	Traffic
409	205.6000	197.6000	13	Traffic
413	205.6500	197.6500	14	Traffic
415	205.6750	197.6750	15	Emergency
417	205.7000	197.7000	16	Traffic
419	205.7250	197.7250	17	Control
421	205.7500	197.7500	18	Traffic
425	205.8000	197.8000	19	Traffic
428	205.8375	197.8375	20	Control
429	205.8500	197.8500	21	Traffic
433	205.9000	197.9000	22	Traffic
437	205.9500	197.9500	23	Traffic
441	206.0000	198.0000	24	Traffic
449	206.1000	198.1000	25	Control
453	206.1500	198.1500	26	Traffic
461	206.2500	198.2500	27	Control
465	206.3000	198.3000	28	Traffic

Our old friend Chuck Robertson, who is kind of the dean of Low Band Skip has been running a series of articles in Popular Communications magazine. Chuck's monitoring is very active and his prolific and sometimes amazing catches are well worth taking the time to read. In a recent issue of Pop Com, the publisher added a list of UK low and U.K.. frequencies to Chuck's column. This list had been sitting around for a couple of years and I have recently learned that the list was sent to Pop Com by one of my contacts in England. Unfortunately, the list is now somewhat dated and in the coming months, I will update that list for you here in this column. In this list of frequencies a term was mentioned which is unknown to most Americans. This term was MOULD and after some discussion appeared on the Shortwave Echo as to the meaning of this term, I have decided to run a full explanation of Mould as it appears in the Scanning Guide to the U.K.--a compilation of data which I have been putting together for the past several years.

MOULD

Introduction

MOULD is the extensive "area-coverage" military communications system used for HOME DEFENSE. This VHF/UHF radio system, introduced in the early 1980's and which was due for completion in 1987, is intended to provide communications between static and mobile units during the early seventies, an examination of Home Defence communications concluded that there was a need for command communications within each Home Defence Region between a mixture of mobile and static units. From this, MOULD, a national network consisting often separate regional VHF radio systems was conceived. Each region has several hilltop base stations giving coverage to that region andpartsofsurroundingregions. These base stations transmit to mobile/out stations on 74-76 MHz and receive on approximately 79/84 MHz. All the base stations in each region are interlinked by VHF links on 142/149 MHz or UHF lines on 421/433 MHz. Any station receiving a signal then retransmits it from ALL of the base stations in that region. These FM transmissions provide communications between Army district headquarters, GOC Rovers, Regular army and Territorial battalions and subordinate headquarters. There is a maximum of seven `hops' between users. When complete there will be about 150 hilltop sites and 200 links using 227 different channels.

MOULD uses Pye Pegasus equipment with Selcall selective calling. The phase 1 equipment uses 18-channel radios with 12.5 kHZ spacing operating at 68-88 MHz and the bearer links use 140-150 MHz and 420-450 MHz. UHF MOULD link frequencies use a 25 kHz channelling scheme [offset from the Amateur frequencies by 12.5 kHz. Phase 2 radios are Pye FM914. MOULD is looked after by the four Territorial Home Defence signal regiments of 2 Signal Brigade.

There are three main ways to identify a MOULD transmission: 1] Normally there is no speech other than test traffic or military exercises. These usually carry the call sign `ZERO' .2] Openings are normally heard as noise bursts during the day with the occasional 1200 Baud digital signalling bursts also heard. 3] Operation usually on 12.5 kHz offset channels, as MOULD has been slotted in between existing military users. More detailed information:

Requirements

In peacetime, MOULD is controlled by District HQs in England and Wales and in Scotland by HQ Scotland, and provides communications between District HQ, GOC Rovers, Subordinate HQ and Regular and TA battalions. Additionally, a District pool of radio is provided to meet ad hoc requirements. The extensive communications in Northern Ireland make the implementation of MOULD in the Province unnecessary.

Design Considerations

Size of Districts

The physical extent of some of the Districts, in terms of communications, is greater than motorway travel might lead one to believe. The system contractor was tasked to guarantee communications between units in a number of localities with the boundaries of each District. In the case of South–West District, these localities stretch from Land's End to the District HQ in Bulford. In the far north, HQ Scotland, in Edinburgh, must be able to communicate operations as far afield as the Western Isles, Orkney and Shetland. The distances involved, coupled with the reliability demanded, dictated a VHF or UHF system based on linked rebroadcast stations.

Topography

The UK contains a variety of terrain–– mountain, island, and increasingly urban. This implied a choice between VHF and UHF depending on topography. Fortunately, in general in the UK, the more desolate the terrain, the less likely there is to be a communication requirement, but there are some notable exceptions to this in Scotland.

Density of users

As implied, the density of users varies across the country as much as the topography. The Southeast District heads the league of military density followed by the Eastern District. Since a radio net can sustain only a finite number of users, depending on traffic levels, before chaos occurs, density of users as well as geography influenced the number and configuration of the nets.

Area Coverage

The first phase required 500 localities to be covered, the majority of which were operating from fixed sites. A second phase envisaged a more mobile and tactical use of the system. In order to provide near District–wide coverage, the initial 500 sites were significantly increased.

The System

The system is based on VFH–FM communications linking mobile and fixed sub–stations through single channel hilltop site rebroadcast stations. The normal transmission mode is two–frequency simplex, but one channel is reserved for single frequency direct working between sub–stations at short ranges. Area coverage is achieved by linking adjoining hill top sites with VHF or UHF point–to–point links, up to a maximum of seven hops between users. This limit is set to maintain audio distortion at tolerable levels. Geography and user density dictate that in most Districts, more than one principal net is requires. At the point of overlap, traffic on two nets may be required to be carried between the same two hill top sites. In this case a two–channel multiplex link, either VHF or UHF, may be used.

Equipment

Initially, the basic radio for the user was the 1–15 watt VHF Pye Pegasus which gives eighteen crystallized channels in the 68–88 Mhz band at 12.5 kHz spacing. Additional user radios were added in the next phase of completion. These were the 1–25 watt, synthesized 250 channel, Pye FM 914. The VHF link equipment is operated at 30 watts–– a separate transmitter and receiver system operating in the 140–150 Mhz band at 25 kHz channel spacing. In addition, a 5 watt UHF transmitter system operated in the 420–450 Mhz band at 25 kHz spacing. In the very remote hill top stations [such as those which can be weather bound for many months], the equipment is duplicated and used alternately. The failure of one set automatically causes the switchover to the other.

Selective Calling [Selcall]

During the evolution of the system, a Selcall system was introduced. Using fast frequency shift keying [FFSK], each unit is programmed with a unique four digit call which allows it to be selectively called to receive messages. There is a six digit liquid crystal readout providing for the four digit call and a two digit message code. There is also an audible alarm for the set being called.

Frequencies

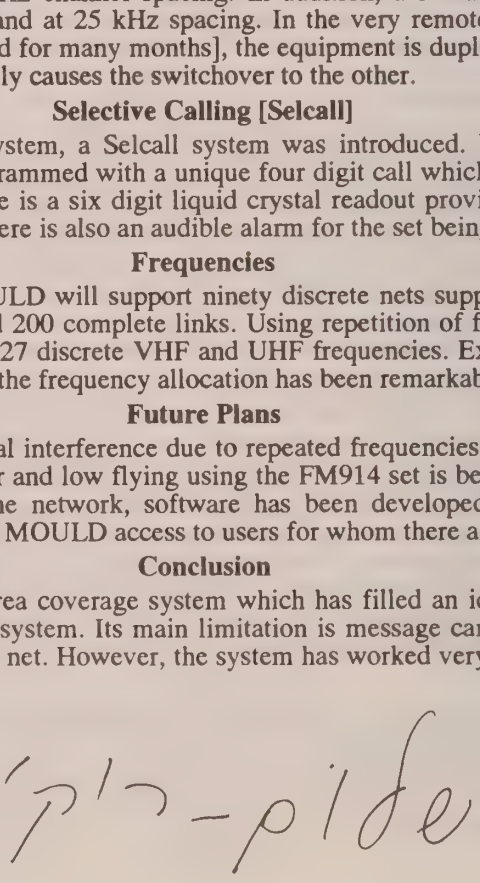
When fully implemented, MOULD will support ninety discrete nets supported by 150 hill top sites housing 323 rebroadcast sets and 200 complete links. Using repetition of frequencies at safe physical separation, MOULD used only 227 discrete VHF and UHF frequencies. Except for isolated instances of interference in the UHF band, the frequency allocation has been remarkably trouble free.

Future Plans

In spite of the dangers of mutual interference due to repeated frequencies, trials are being conducted to put Pye in the sky. Low power and low flying using the FM914 set is being tested. In an attempt to link MOULD with the telephone network, software has been developed to interface with British Telecom. This would also extend MOULD access to users for whom there are no radio sets available.

Conclusion

MOULD is a very extensive area coverage system which has filled an identified gap in the British Home Defense communications system. Its main limitation is message carrying capacity which must be contained by discipline on the net. However, the system has worked very well up to this time. Until next month....



LOW BAND SKIP

Send reception reports relating to distant stations received in the 30-50 MHz band plus any Low Band DXing tips, comments, etc. to:

Paul Bastian (PA-267), 800 Kimberton Road, #H-4, Phoenixville, PA 19460

With it being Spring, it is a good time to make repair to outside antennas systems, as Winter can take it's toll. I was surprise with the amount of skip this pass Winter, I hope that it will continue.

As you have notice that we use this column to list skip reports from the members. If you are looking for more information on skip, I have a suggestion for you. Chuck Robertson, IL-141, has written several articles in "Popular Communication" on this matter. Listed below Chuck has given me a list of articles which he has written, if you get a chance look them over.

Jun 89 - Pirate radios on low-band
Jul 89 - The 29.7 to 30 MHz Band
Oct 89 - Caribbean skip
Nov 89 - South Africa Police
Dec 89 - Worldwide scanning: Russia, Europe, UK, Pacific, etc.
Jan 90 - Skip repeaters
Feb 90 - Central America skip
Mar 90 - Gulf Fleet Marine Corp
Apr 90 - California Quake, Hurricane Hugo, Hawaii skip & others

Chuck also sent some skip that he received in the morning of Nov 13, 1989. All times are Central Time

TIME	FREQ	COMMENTS
7:55	41.10	Costa Rica, messages (telegrams), Spanish
7:58	30.025	US Military, Fairfield AFB, England
7:59	32.075	US Military, probably UK operations
8:04	30.695	UK radio-telephone, full-duplex
8:05	31.725	UK paging, non-voice
8:09	41.28	Costa Rica, telegrams, Spanish
8:12	30.10	Non-voice paging, Scandinavian (test call heard)
8:15	34.55	S. Africa, Afrikaans, apparently Military
8:16	30.475	San Salvador, El Salvador, security taxi service, Spanish
8:20	37.00	Hispanic Military; clear voice Spanish & Time Domain
8:21	37.55	Broken Portuguese (Brazil)
8:23	37.60	US water op skip; this seems to be a Brazilian station, as Portuguese has been logged on the repeater
8:24	38.00	Open carrier, often heard
8:25	38.40	South Africa Police; Afrikaans
8:28	37.20	US Navy
8:29	38.26	Brazil; Portuguese
8:31	35.85	France; multi-tone burst access; French police
8:33	37.125	Hispanic business, maybe billing or banking; also repeats US skip from 33.60 MHz (input)
8:47	35.1875	France, probably police ops
8:48	35.34	Phone-on paging, US Virgin Island
8:49	36.15	France
8:50	37.20	Distorted Spanish; apparently repeated skip
8:52	37.19	Dominican Republic business, Spanish
8:53	33.50	Hispanic Military; maybe Mexico
8:56	37.72	Brazil, Portuguese
8:59	32.45	Jamaican business; "Meet the Governor this afternoon"
9:01	33.00	Hispanic businesses
9:03	35.525	France
9:06	41.00	US business skip is repeated
9:09	34.50	Turkish; sometimes repeats German skip
9:10	46.65	Hispanic business
	43.70	Hispanic business; often repeats US paging skip
9:11	44.27	Trinidad & Tobego
9:12	44.95	Hispanic radio-telephone; full-duplex
9:14	47.80	Hispanic business
9:16	43.85	US business skip repeated

From Carl, NY-11Z, he sent a nice report. Carl lives in Port Chester, NY which 15 miles north of NYC. This was all done with a Regency TS-2 and telescopic antenna. All times are in Eastern time.

DATE	TIME	FREQ	ID	COMMENTS
11-11	14:00	37.22	KMF964	Los Angeles County Air Quality Management
11-12	10:17	37.24	KKJ509	Tarrant Co Sheriff - Ft Worth TX
	10:30	37.18	KJH240	Walker Co Police - TX
	10:35	33.86	KA0216	Bellevue Fire - Omaha, NB
	10:56	37.26	KLJ210	Katy, TX - Fire (base & mobile/Paging)
	11:06	37.18	KKU488	Kimble Co Hospital pager - Junction TX
	11:11	33.92	KRF347	Bell Co Fire - Killeen TX
	11:54	37.18	KKS626	Madison Co Sheriff - Madisonville TX
	11:55	33.86	KNBJ669	Independence, LA Fire
11-13	9:16	30.45		Fort Hood TX, Range Control - US Army
	9:51	30.94	KJL564	TX ?? (HELP)
	10:01	33.92	WSL833	West I-10 FIre, Katy, TX
11-16	16:02	33.93	KRF538	Bell Co FD - Belton TX
11-18	9:40	33.94	KVG839	Pasco Co Fire - New Port Richey, FL
	9:46	47.58		Spanish
	9:49	48.30		Spanish
	10:01	37.18	KKU861	Navasota, TX Police pager
	11:21	37.06		Harris Co Constables - Houston TX
	11:28	34.85		"Launch area" - US Army (HELP)
	11:38	39.58	KGE549	Beaver Co Sheriff - Beaver OK
	11:49	36.44		"Bravo 1-7/Bravo 2-2" US Army (HELP)
	12:01	33.78	KIR745	Cypress Creek VFD - Houston TX
	12:10	39.90	KZR696	Dawes Co Police - Chadron, NB
	12:21	33.52	KTL542	Comm Protection Agency FD - Houston TX
	12:24	33.98		CA State OES F-1/Sacramento Co Fire
	12:30	33.88		Cypress Fairbanks VFD - Houston TX
	12:36	33.82	O.C.D.	Los Angeles, CA FD F-8, Valley Dispatch
	12:41	33.70	O.C.D.	Los Angeles, CA FD F-7, Metro Dispatch
11-19	12:31	33.94		Los Angeles, CA FD F-12, Command
	12:59	33.90	KCP423	Ponderosa VFD - Houston TX
	15:55	31.06		LA Wildlife & Fisheries Dept
11-23	8:58	33.70		Jefferson Parish, LA FD, F-1 Dispatch
	9:00	33.70	KKS809	Kenner, LA Fire
	10:49	37.18	KNJF796	Maven Ambulance (HELP)
	11:29	37.18	KNBL898	Copperas Cove VFD TX
	11:35	37.18	KKE866	Hospital pager - TX (HELP)
	11:48	33.46		Cyprees Creek VFD - Houston TX
	11:52	39.90	KAG390	Kimble Co Sheriff - Kimble NB
	12:11	33.82	KXJ300	North West VFD - Houston TX
	12:12	37.18	KCZ498	Frisco TX Police
	12:19	37.18	KBZ420	Kendall Co Police - Boerne TX
11-24	10:44	37.90	WQR572	Graham, TX Fire
	11:15	37.90		Azle, TX Fire
	11:15	37.90		Willow Park, TX Fire (HELP)
	11:31	37.18	KKO833	Palo Pinto Co Sheriff - Palo Pinto TX
	11:32	37.18		Meadows, TX Fire
	11:36	37.18		Santo VFD, TX
	11:54	42.94		NV Highway Patrol, F-1, Las Vegas
	12:05	37.18	KWJ247	Eastland, TX - Fire
	12:31	42.94	KIL451	NV Police - Battle Mtn
	12:31	42.94	KOG497	NV Police - Winnemucca
	12:31	42.94	KYV289	NV Police - Mtn. City
	12:50	37.18	KKR244	Itaska, TX ambulance pager
	13:00	33.90	KNID368	Fire (HELP)

Until Next...Take Care

RCMA has a Telephone Number

The RCMA telephone number is (714)545-9551. It's `manned' by an answering machine, and while it's been established for RCMA members, its use is limited. You may leave a message concerning delivery or renewal problems; you cannot use it to request club information or order back issues. Appropriate response will be made by letter or postcard, not by telephone. Any call regarding a membership problem MUST be accompanied by your membership number.

Please remember that it is a toll call, so be sure before you dial that a written communication won't do just as well. Do not call regarding a missing newsletter before the 20th of the month of the issue in question. **Your message will be relayed to the appropriate person, but your call will not be returned.**

MARKETPLACE

Members may advertise, free of charge, items wanted, items for sale, and items for trade that are associated with the hobby of monitor/utility/radio listening. No dealer ads will be accepted for this column. RCMA assumes no responsibility for the outcome of any transaction between members resulting from ads printed in this column.

Please Note: Ads must be submitted on Marketplace ad forms ONLY. You can obtain these by sending your request AND an SASE to RCMA, P.O. Box 542, Silverado, CA 92676. Ads received at this address by the first of the month will appear in the issue printed during the same month. You must include your membership number.

WANTED: Grove Code Breaker or similar device
Contact: Chris Wertz (PA–150), 322 Winding Way, King of Prussia, PA 19406 (1/22/90)

FOR SALE: Sony Air–8. Mint condition, supplied in original carton. Thirty channels in three segments. PSB 144 – 174 MHz, Aircraft 108 – 136 MHz, Commercial FM 78 – 108 MHz. Low 150 KHz through 2194 AM broadcast band. $179 (includes UPS)

FOR SALE: Dressler Active Antenna VHF–UHF ARA–900. New condition in original carton. Great for UHF and 800MHz monitoring. Only fair on aircraft. Original cost: $189.95 plus shipping. Asking $149 (UPS included).
Contact: Darrel E. Charest (TX–103), 3420 Trenary Lane, Colorado Springs, CO 80918 (1/25/90)

FOR SALE: Bearcat BC200XLT. Full cellular coverage. Coiled 12volt cord. $215 (includes UPS).
Contact: Albert Nichols (RI–007), 1001 Sylmar Ave, Space #210, Clovis, CA 93612–0210. (209)299–9261 between 9 a.m. – 4 p.m. or (209)299–7807 eves and weekends. (2/05/90)

MONITORING & THE LAW

Jorge Rodriguez, 1129 Castile, Coral Gables, FL 33134

Cordless Phone Privacy out the Window

It will come as little surprise to monitor radio hobbyists that the Supreme Court of the United States let stand in January a lower court ruling that give police the right to monitor cordless telephone calls without the ordinary safeguards of a warrant or probable cause. Unlike cellular telephones which were specifically included in the Electronic Communications Privacy Act of 1986, cordless phones were not covered.

So in 1983, when the Scott Tyler family of Dixon, Iowa, received as a Father's Day present a cordless telephone, Scott and Sheila Tyler and their seven children did not know their telephone was broadcasting their conversations all over the neighborhood. When the Tyler's used their cordless, the cordless phone of a neighbor four blocks away would sometimes make ringing or dialing noises and pick up the Tylers' conversations. That's when Sandra and Rich Berodt, the Tyler's neighbors started to listen in.

One day in September 1983, Scott Tyler, a food distributor, told a business associate that he would have "a light load" for him the next day. Sandra Berodt thought Tyler had said "a white load," mistakenly concluded that their neighbor was dealing in cocaine, and called the police. At the direction of an investigator with the county sheriff's department, the Berodts eavesdropped on the Tylers' telephone for the next three months and recorded the conversations with equipment supplied by the police.

The sheriff's investigator and the Berodts soon realized that Scott Tyler was not a drug dealer. Tyler was stealing $35,000 in merchandise from his company. Based on the intercepted conversations he was charged with that crime. Although the tapes were thrown out as evidence at the trial, Tyler was convicted and sentenced for four months.

The Tylers filed a civil suit against the Berodts, the investigator and Scott County for violating their constitutional rights and federal wiretapping law. Lower courts rejected the Tylers' arguments that the interception, which would have required court approval had it been conducted on a regular telephone, violated their Fourth Amendment protection against unreasonable search and seizure. In January, the Supreme Court, without comment, refused to review the conclusion of the 8th U.S. Circuit Court of Appeals that Fourth Amendment protection do not apply because there is no "reasonable expectation of privacy" in cordless telephones, as there is with conventional phone conversations. The high court's refusal to hear the case does not constitute a ruling that the Fourth Amendment does not protect cordless telephone conversations. The 8th Circuit's ruling is binding only in Iowa, Missouri, Arkansas, Minnesota, Nebraska, and North and South Dakota; in other states it is merely persuasive. That means that a court can choose to follow or not follow the 8th Circuit's ruling.

The issue, which other federal courts have scarcely started to address, is a sign of the times now that cordless telephones have been transformed from a high-technology wonder to a standard convenience. According to industry figures, nearly 25 percent of American homes have cordless phones. "It's your basic ... , middle-class search and seizure issue," said Steven Shapiro of the American Civil Liberties Union, which represented the Tylers in their appeal to the Supreme Court. "I suspect it's going to be an increasing phenomenon once police learn they can do it and get away with it," Shapiro said. "What is most distressing to me about it is I really believe that the vast majority of people who own these phones use them as just another extension phone in their house and don't draw any distinction with regard to the security of their conversations on the cordless phone versus their regular phone." In dealing with cordless phones, Shapiro said, "the court's constitutional doctrine has not caught up to technological change."

In 1968, Justice Brandeis wrote a plea for privacy rights when he disagreed with the majority of the court in Katz v. U.S., 389 U.S. 347, 88 S.Ct 507, 19 L.Ed.2d 576 (1967). The court changed its mind, saying that "to read the Constitution more narrowly is to ignore the vital role that the public telephone has come to play in private communications." since 1928. The Tylers' lawyers, citing Katz, said the court in that case "agreed that the personal nature and fundamental importance of telephone communications required Fourth Amendment protection despite the technological vulnerability of such communications to interception." Similarly, they said, the cordless telephone case "demands that a judicial balance be struck between developing technology and the enduring values of the Fourth Amendment. Petitioners respectfully submit that this court should strike that balance itself when the privacy rights of millions of Americans can be affected by the result." But lawyers for the Berodts contended that "users of this optional convenience have every reason to expect that such communications can be readily overheard by other individuals using commonly available, ordinary types of radio-based communications equipment." They noted that the owners' manual for the Tylers' telephone, which, like other cordless phones, operates by broadcasting radio signals between a mobile handset and a "base unit," **warned that "others with cordless telephones could overhear communications broadcast by (their) unit."**

The issue of how to treat cordless telephones is complicated because someone may overhear a conversation without making any attempt to do so. "We're not talking about a situation where someone is buying and trying to use equipment that's specifically designed to intercept or eavesdrop," said Mark D. Cleve, a lawyer for the Berodts. The Electronic Communications Privacy Act of 1986 seemed to address the issue by protecting private citizens from criminal liability for such accidental interception. Congress there amended the federal wiretap law in to specifically exempted cordless phones from privacy protection. Shapiro however notes, "even if you thought there was nothing you could do about the neighbor who occasionally overhears your conversation, it's a big leap from that to say that the government has the right to engage in prolonged eavesdropping." Court-authorized wiretaps are subject to strict time limits and only those conversations that appear relevant may be tapped. The ACLU is pressing Congress to extend similar protection to cordless phones this year. Cleve said he owns a cordless phone and said that if he discovered his neighbors were listening in, "I don't think I'd be very happy about it; I don't think anybody would." But, "I think most people or a lot of people anyway have had various types of unusual experiences that would indicate that this isn't a regular telephone that they're dealing with."

NEW PRODUCTS REVIEW

This column is for news of new products and product reviews of interest to scanner and short wave utility listeners. Send news, reviews, and comments about receivers, antennas, frequency publications and other products related to the hobby to:

Curtis Harbin, P. O. Box 5576-E.K.S., Johnson City, TN 37603

Welcome, everyone, to the April column! I have lots of material to cover this time so I'll get right into things instead of chatting. The mail service has been extremely kind to me lately and he is giving me dirty looks when he puts things in the box. Let's keep this up and make him work even harder.

From a regular contributor, Ken (Fla-033), comes a few comments in reference to the BC-760 XLT scanner. Ken has one of these units and seems to be very pleased with it. He has added the PL tone board and has located many new PL tones by using this device. He wishes that on either the PL deck or the scanner itself there was a provision to search for PL tones instead of having to enter one at a time to see who, if anybody, uses it.

Thanks, Ken, for writing in. My personal friends in Mass., Greg and Priscilla (Ma-?), inquired if anyone had had trouble with the BC-760 XLT units on 800 MHZ. Seems they got a 760 unit and works great on all the bands except 800. They have yet to hear a SMR system and they know there are some active in the area. Needless to say they are not "Happy Campers" with this situation. Anyone having the same troubles? If so, drop me a letter in the mail and I'll see to it that it gets forward to them. (The unit I had started smoking right after installing the batteries for back up memory. I wasn't impressed either !)

From Jeff Multer (NC-101) comes a few comments on the AR-2515. In each of the 62 scanning banks, he programmed 5 buffer frequencies--inactive just above the highest active frequency in the bank. The 2515 scans banks from highest to lowest frequencies, so the buffers enable the 2515 to re-

tune without missing conversation on the highest active frequencies. Without the buffers, the 2515 user will miss communication on some channels--no matter how strong the signal is--anytime frequencies from different bands are run together in the same bank or two linked banks.

Jeff mentions that the 2515 might have been a better receiver with separate tuning circuits (shortwave and 30 MHZ and up) and an "A-B" switch. In the 62 scanning banks, there appears to be less audio distortion, interference/intermod on some channels by making sure the frequency increment is set to 5 KHZ. It appears that this has an effect on the tuning of his unit.

Thank you Jeff for writing in and hope you'll do so again ! Hope the information I provided you on your requests helped.

Seems some people are having trouble with a company on delivery of items they ordered. From Tim (IL-?) comes a few comments about CRB Research. Seems Tim ordered some books from the company and still hasn't received them all. When he called and wrote in reference to the items, they said they needed proof of cancelled check or money order before anything could be done. They advised that all material had been sent to him and refused to comment on this over the phone. He had been waiting over 11 weeks when I got his letter in November. From what Tim told me, CRB Research doesn't send an invoice (proof of payment) with shipments, but requires this to prove that a customer ordered the items he is inquiring about. Tim advises to keep records and copies of payment so if this happens to you, you can show proof that they were paid for and not received.

Thank you, Tim, for writing in. Hope the situation is straightened out for you real soon and you get all the material you ordered. It has been many years since I have ordered from this company, but you remember reading a few months ago that someone else was having to wait a long time for his material.

My next bit of information is from John Johnson, A/E of Wisconsin. Thanks, John. The following is a review on the SONY ICF 2010 receiver.

> Being new to the hobby of below 30 Mhz. monitoring, I sought the help of others that had been in the hobby for some time. All those I talked with thought the Sony ICF 2010 would be a good unit to start with. After getting one, I must agree the Sony ICF 2010 covers 150 khz to 30 Mhz. Also covered are the air band (116.000 to 136.000 Mhz.) and the FM broadcast band (76.000 to 108.000 Mhz). The unit has a digital readout (LCD) and can be tuned via a tuning knob, or direct frequency input. In the manual tuning mode, you can select either a fast tune, which tunes at a rate of 1.000 khz. or a slow tune which tunes at .1 khz. Also the tune knob can be locked out so that if it is bumped, it won't knock you off frequency. The unit has a digital clock that can display the time in 12 or 24 hour format. Four programmable timers/alarms and a sleep option are also on the unit. The sleep option allows you to have the unit automatically turn off in 60, 30, or 15 minutes. The programmable timer allows the unit to turn on at a specific time or stay on for 15, 30, or 60 minutes or stay on forever!! The Sony has 32 programmable memories, which can be scanned with the memory scan option. It also has a programmable scan or search function. The band limits can be set, such as the search feature on a scanner or it can search preset shortwave bands. Scan delay can be either 1.5 seconds or it can totally stop the search function.
>
> Other features include a 10 LED signal strength/battery check indicator. The unit has a built in antenna that can be extended to approximately five feet. A carry strap and a built in tilt stand, similar to what a Bearcat 600XLT has are also included.
>
> The unit is powered by a 4.5 VDC adaptor that is included. Other things included with the unit are and earphone, wire antenna, and a SW handbook with information on SW bands. The manual is easy to understand, and includes many drawings and diagrams to aid with setup and usage. Two AA batteries MUST be installed before anything can be done with the radio. This includes even turning the radio on!! These two batteries power the microcomputer and clock. The radio itself can be powered with three D size batteries.
>
> The keyboard is fairly easy to read, however the lettering is blue in places and does tend to blend in well on the dark background. The light for the display is worthless actually, as it does a very poor job of lighting the display up.
>
> I have my unit connected to an outside antenna approximately 55 feet long. I have had excellent results. The unit has an antenna input for AM/SW, and also one for the FM/AIR bands. An earphone jack, power supply jack, and a tape output jack are all on the unit as well, as are an AM RF gain control and a tone switch.
>
> I am very much impressed with the unit, and feel that anyone starting out with below 30 Mhz. listening should put this radio on the top of his list. The unit can be had for approximately $340.

The next and final bit of information I have is sent to me by Bill Mauldin. Thanks, Bill. Bill reviews the AR-950 scanner by Ace Communications.

> ACE Communications has produced a new scanner. The new black box has been named AR950. It covers 26-54 MHz low band, 108-174 MHz for AM aircraft and FM VHF communications, 406-512 MHz for UHF, and 830-950 MHz. The scanner can be powered off 120 VAC or 12 VDC. The AR950 comes complete with mobile mounting bracket, all hardware, and two antennas for rear mounting to a BNC connector.
>
> The scanner has 100 memory channels, divided into five memory banks. The radio does *not* require a backup battery for memory. Each bank contains 20 frequencies. The AR950 also has five temporary storage memory locations for use during search. There is a priority channel, selectable all-channel delay, jacks for earphone and speaker use, an attenuator selector, selectable AM/FM modes, keyboard lockout, and lighting for easy night viewing. The radio comes com-

plete and ready to use.

The 950 is so light weight that I thought ACE had sent me an empty box. This is one scanner that won't pull the plastic out of your dashboard! And, everything was there in the box, just as it should have been. When I plugged it in, there was enough audio for everyone! I am one who plugs it in, turns it on, and pushes buttons. You're not going to find programming as easy as plugging in and turning on. Initially, the manual is truly necessary.

Instructions are simple and easy to follow, but different. The key entry sequence is not like other scanners I have programmed, but following ACE instructions makes frequency entry simple--once you get use to leaving out the decimal. Instead of entering 1 5 4 . 9 2 0 for 154.920 MHz, you just enter the numbers with no decimal point. The instruction book also suggests that you use the mobile mounting bracket for a slight tilt up in desk operation. In programming, the keys are tiny but well spaced and lighting is satisfactory although not uniform.

Most professional radio evaluations are done on the test bench with probes and signal generators. Although, this is an excellent method to determine the performance measurements of a radio, I like seeing the radio perform in the field under the same conditions as my other scanners. I know what a good scanner can hear, and where the problem areas are. In the mobile, the radio had good sensitivity. In areas of high interference, the AR950 did encounter some problems. I would rate the actual sensitivity as excellent. If the radio had a metal case, I am sure the interference would have been much less. These modern plastic cases don't do much for blocking unwanted signals. ACE advises that the 21.4 MHz intermediate frequency was designed to displace much of the unwanted intermod. This does help. The AR950 is the most sensitive radio I have ever encountered on 800 MHz. It is excellent for anyone devoted to 800 MHz listening.

What didn't I like? I found having "delay" on all channels when activated for one channel somewhat of a problem. I prefer to activate "delay" each channel rather than "on" or "off" for all channels. When the unit was programmed to the Florida Highway Patrol on 154.695 MHz, the sensitive receiver easily brought in Miami, 57 miles to the south, however, whenever there was a transmission on 154.650 MHz from the much closer Palm Beach Sheriff's transmitter, the FHP signal was covered. Priority sampling is slow, and you can miss some of the selected priority transmissions. The stations that you lock out during one listening period won't be locked out when you turn the radio on the next time. These are really small problems when you look at the overall performance of the AR950 and consider the price tag.

Overall, I would rate the AR950 as an excellent scanner for the price. This radio is not to be compared to the ACE AR2515. Of course, you can't compare price either. For $299 retail, this is a lot of radio packed into a small, versatile package. If you are planning to use the radio in an area where radio signal garbage is high, you can expect some interference because of the high sensitivity. If you live in an area where the airwaves are less than metropolitan, then you will be more pleased with this scanner. It does hear weak signals with ease. I found some noise on low band, especially when the radio was used mobile, but with proper shielding, even this performance was acceptable. In the coverage of cellular, 800 MHz business, and 800 MHz public safety, this is the best scanner I have encountered. During the tests, it out performed some of the local professional 800 MHz handhelds. The local fire department was so impressed with the 800 MHz performance that they bought the test radio right out of the return shipping box. That is quite a statement of approval.

If you buy the radio from ACE, you qualify for a full refund if you return the radio in new condition in 25 days if you are not satisfied. With a guarantee like that, you can't go wrong in considering the $299 dollar scanner as your next purchase. I would certainly consider it if the 800 MHz band is your major interest. Considering what scanners are costing in today's market, that is a good buy. Further information may be obtained by writing ACE Communications in Indianapolis.

That is all the information I have this go around. Hope everyone has enjoyed and we'll do it all again next month. Lots of neat material to present in the upcoming months, so hang in there . . . Curtis.

NEWS MEDIA COMMUNICATIONS

This column is for reporting information about news media radio communications. Send frequency lists, information, questions and any related articles on two-way radio systems used by television, radio, newspaper, magazine, film production companies, etc. to:

Allen G. Henney, MD-069, 6912 Prince Georges Ave, Takoma Park, MD 20912

This month, I have several listings from my files, with the largest for various Florida locations. Most of these listings were made during brief visits to the areas indicated. I will start off with a listing of my observations for the South Florida media which were made over the past several years. I would like to thank both Scott (FL-033) and Ken (FL-025) for their assistance with the listing below.

South Florida News Media

151.625 Goodyear Blimp "1A" & ground crews "KC8186"
(Also try 465.9125, 465.9375, & 465.9625)

161.640	Goodyear Blimp & camera crews "Skycam" (86)
161.670	WRMF–FM97.9 remotes in Boca Raton
161.730	WHYI–FM100.7 "Y–100" radio remotes
161.760	WIOD–AM610 ground traffic/news (88) (see 450.05)
170.150	WNWS–AM790 reporters news/remotes "WSM783" (88)
173.225	Miami Herald (Knight Rider n/p) "KIG366"
450.050	WIOD–AM610 "Jet Copter 610" (88)
450.0875r	WSVN–TV7 Desk "Skycam" "252" ch.1 (90) (455.0875 in)
450.1125r	WTVJ–TV4 "Live Eye Control/Assign Desk" (455.1125 in)
450.150r	WSVN–TV7 "IFB", ENG "835/6" ch.2 (90), ch.3 (86) (455.15 in)
450.2125r	WTVJ–TV4 "NBC IFB" ch.4 (ch.5 in some radios?) (455.2125 in)
450.2875r	TV–Network "Ku–Truck", "ENG", Affiliated w/WFAA Dallas
450.300r	WPLG–TV10 "IFB" ch.4 (Alternate w/450.725) (90)
450.3125r	WCIX–TV6 "ENG/News Room Base", cues "KVY781" (Coral TV)
450.3875r	WTVJ–TV4 "Local IFB" ch.3 "ENG" "KEH379" (455.3875 in)
450.4125r	Spanish WPTV–TV5?, "TV Base" cues, audio (455.4125 in)
450.450	WNWS–AM790 AUDIO without 5 second delay (90)
450.4875r	"TV ENG" KPX650 "791", has an 11:00 newscast? WCIX–TV?
450.500r	Traffic helicopter heard (85) WOKC–AM1570? (455.5 in)
450.5875r	WPLG–TV10 m/w ENG ch.2 (90)
450.6125r	WPLG–TV10 Desk/Ops ch.1 "KUD241" (Post Nwswk) (455.6125 in)
450.650r	Metro Traffic Control remotes/reports "831" (455.65 in) (Note, WRMF reporter can use 450.65 to talk to Metro)
450.6875	NOAA (162.55) link from Hurricane ctr to WCIX's tower
450.725r	WPLG–TV10 cues (some IFB) ch.3 (90)
450.750r	Tanya Cruise traffic aircraft over Boca Raton (90)
450.850	WRMF–FM97.9 "Yellow Copter" traffic remotes
455.450	some traffic aircraft Metro Traffic? (86 only)
455.550	WINZ–AM940 "I–95 AM Base KQY886" Al Ambrios Traffic
455.800	Metro Traffic Control remotes (86) (now 450.65 only)
455.800	National Public Radio (Net feeds from Ft. Lauderdale)
455.800	WNGS–FM92.1 & WITS–AM1340 "Skylight Traffic Plane"
455.850	Syndicated traffic by Al Ambrios (87) (now 455.55 only)

Next, some Jacksonville updates. See the September, 1988 and the February, 1989 media columns for additional listings for Jacksonville.

Jacksonville, Florida (updates)

161.670	WPDQ–AM690 remotes
161.760	WGIG–AM1440 constant carrier (Brunswick, Georgia)
170.150	WTLV–TV12 IFB (see note below)

As an interesting note, 166.25 & 170.15 MHz are both media allocations in the Southeast United States. However, many federal users are also found operating on them as well. For example, Andrews Air Force Base (Camp Springs, Maryland) uses 166.25 MHz for water heater telemetry. The Kennedy Space Flight Center can be found operating on 170.15 MHz for various activities in the Cape Canaveral, Florida area. During Space Shuttle launches, the Kennedy Space Flight Center also operates what appears to be pooled media coverage on 171.2625 MHz (Mainly for camera cues and instructions).

Vero Beach, Florida

161.640	WAXE–AM1370 audio & feeds?
161.730	WGYL–FM93.5 & WTTB–AM1490 remotes

We spent a few days during the extremely cold period around Christmas in the Lake Buena Vista area. There, I was surprised to discover that the Magic Kingdom actually has microphones that operate on various remote pick–up frequencies. These frequencies apparently become active during parades and stage performances in the Magic Kingdom. If you find yourself visiting Walt Disney World's Magic Kingdom, give them a try and let me know what you hear!

Walt Disney World, Lake Buena Vista, Florida

170.245	ABC–TV Christmas Day coverage (used for cues, info)
171.100	(171.105) ABC–TV Christmas Day coverage (wireless mic)
450.0625	WDW, Magic Kingdom microphones
450.1875	WDW, Magic Kingdom microphones
450.3125	(450.325) WDW, Magic Kingdom microphones
450.4375	(450.450) WDW, Magic Kingdom microphones

From time to time, we stop over in the Raleigh area. Here is what I found during the last visit. Also see the October, 1988 and the September, 1989 columns for additional listings from the Raleigh area.

Raleigh & Durham, North Carolina area

450.1125r	WTVD–TV11 (Durham) "Master Control" "KZH824" ch.3
450.2125r	WTVD–TV11 (Durham) "Desk" "KZH824" (Capital Cities)
450.450	"Base 1 News/ENG" "WSM790"

NEWS MEDIA COMMUNICATIONS continued

450.5875r	Syndicated traffic reports (455.5875 in)
450.6125	Syndicated Metro Traffic Control reports
455.800	WSKY-FM101.5 traffic aircraft

The final report this month comes from Stanley (CA-SD-062) who sends us some notes on the San Diego Metro Traffic Control frequencies (see the December, 1989 & January, 1990 columns). There seems to be some conflict with information on their operations. Stanley says that 455.5 MHz is used to communicate with their two airborne traffic reporters and 455.925 MHz is used for the actual traffic remotes. A report from our anonymous Los Angeles contributor puts Metro Traffic on only 455.5 Mhz. Another possible frequency used by them is 450.95 MHz. Stanley notes that they have two fixed wing aircraft, one for the north county area and one for the remainder of the county.

Since RCMA is moving toward desk-top publishing, we are now able to submit the columns directly on disk rather than on paper for printing. If contributors have any extensive listings for this column, and they are (or can easily be) in the ASCII format, please let me know and I will send you a disk or call you on the MoDem. Otherwise, I must re-enter all the information into the computer for printing.

Just received a few more updates from Howard (CA-LA-039) for the media terms listing. If anyone would like a current copy of the listing, please send me a SASE and I will see that you get a copy.

Until next month... Alan

Want to Get Your Newsletter 1st Class?

Getting your RCMA Newsletter mailed 1st class may be your answer if you have consistently slow or erratic service with 3rd class mailing. 1st class costs a lot more—that's why we use 3rd to begin with—but if you can spend the greater amount, here's how:

Check your mailing label for the number of months left on your current membership. (If it says 10/90, for example and you are reading this in January, then there are 9 months remaining.) Multiply the number of months by the amount of 88 cents. Make out a check or M.O. for that amount to RCMA, Inc. Send to: RCMA General Manager, P. O. Box 542, Silverado, CA 92676. Mail with enough time to allow delivery *before* the end of the month.

PUBLIC SAFETY

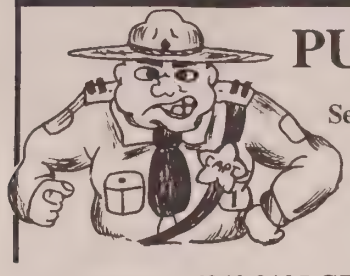
This column is for reporting Public Safety and Special Emergency frequency information, radio system details, radio codes, dispatch areas, unit numbering systems, etc. for poilice, sheriff, fire, forestry (except USFS), fish and game, highway patrol, state police, prisons, prisoner work camps, local government, highway & street maintenance, port authority/bridge maintenance, animal control, ambulances, paramedics, hospitals, life guards, ski patrol, search & rescue, flood control, civil defense and disaster organizations. Input and questions for this column must be sent to the proper regional Public Safety editor listed below.

Associated Public-Safety Communications Officers, Inc.

OFFICIAL TEN SIGNAL LIST

APCO states the numbering, sequence, words or word phrasing of the below listed signals may no be altered, nor may the reserved signals be otherwise implemented except by APCO. Any user may employ signal numbers upward, beginning with 10-40, as needed for local dispatching. RCMA publishes this listing in support of APCO and their uniform dispatch code efforts. We will print other dispatch codes, different from the OFFICIAL APCO listing, only to assist our membership in their continued monitoring hobby. It is hoped you find this listing useful.

10-1	Signal weak	10-19	(In) contact
10-2	Signal good	10-20	Location
10-3	Stop transmitting	10-21	Call ( ) by phone
10-4	Affirmative (OK)	10-22	Disregard
10-5	Relay (to)	10-23	Arrived at scene
10-6	Busy	10-24	Assignment completed
10-7	Out of service	10-25	Report to (Meet)
10-8	In service	10-26	Estimated time of arrival
10-9	Say again	10-27	License/Permit Information
10-10	Negative	10-28	Ownership Information
10-11	( ) on duty	10-29	Records check
10-12	Stand by (stop)	10-30	Danger/Caution
10-13	Existing conditions	10-31	Pick up
10-14	Message/Information	10-32	( ) units needed (Specify)
10-15	Message delivered	10-33	Help me quick
10-16	Reply to message	10-34	Time
10-17	Enroute	10-35 through 10-39 are reserved for future assignment by APCO. User option 10-40 upward.	
10-18	Urgent		



PUBLIC SAFETY—SOUTH EAST

Send Public Safety and Special Emergency frequencies, radio system details, and questions as follows—Florida, Georgia, N. Carolina, S. Carolina, W. Virginia and Virginia:

Robert K. Cooke, 717 Seven Oaks Ln, Columbia, SC 29210

Compuserve–76340,2105 GEnie–R.COOKE5

Welcome to the April edition of PS/SE. We have a few items for your reading pleasure but the input to all Associate Editors has slowed down considerably. I hope that all of our members will send some frequencies to your State Editor this month. I want to Thank all of the members that took the time to send in a survey to Bill Mauldin. Your comments and frequency profiles are greatly appreciated. We will be finishing the listing for Western North Carolina this month. So let's get started !

FLORIDA

Randy Kerr, Associate Editor 310–1 SW 62nd Blvd, Gainesville,FL 32607

Randy didn't receive any frequency data from members but did receive a query from Peter (MA–155) concerning some questions about Florida fire departments. His questions are listed below. Any assistance would be greatly aprreciated. (1) Does Metro Dade Fire still use 33.72 and 153.77? (2) What is the channel lineup for Metro Dade Fire now? (3) Does Fort Lauderdale Fire really use five channels? (4) Does Miami Fire use any 453 Mhz frequencies now? (5) Does anyone know the Walton County Fire frequency?

GEORGIA

Steve Giovanis, Associate Editor 4314 14th ST E. Beach, St Simons Island,GA 31522

Steve didn't have any submissions from Georgia members this month but Peter (MA–155) had some questions concerning the Atlanta Fire Department' Channel Plan. Peter needs to confirm if these are all of frequencies used by ATL Fire.

F–1	154.190 R	153.890 in	Operations
F–2	154,445		Administrative
TAC 1	154.190		Talk–Around
TAC 2	153.830	Low Power	Fireground
TAC 3	153.950	Low Power	Fireground

Peter would like to know what the frequency for Atlanta Hartsfield Fire/Crash. Just send any answers to Steve Giovanis and I'll print them in a future column.

NORTH CAROLINA

Randy Whaley, Associate Editor, 22F Sails Way Drive,Greensboro,NC 27406

From Tenn. A/E Curtis Harbin & NC A/E Randy Whaley

Western North Carolina Part II

154.430	Dispatch	Alleghany Co Fire
155.280	Dispatch	Alleghany Co Rescue
155.340	Ops	Alleghany Co Rescue
154.845	Dispatch	Ashe Co Sheriff
154.875	Mutual Aid	Ashe Co Sheriff
155.775	Dispatch	Ashe Co Fire Dept
155.235	Dispatch	Ashe Co Rescue SQ
155.280	Ops	Ashe Co Rescue SQ
155.340	Medic/Hosp	Ashe Co Rescue SQ
155.070	Patrol Ops	Avery Co Sheriff
155.625	Car/Car	Avery Co Sheriff
154.875	Mutual Aid	Avery Co Sheriff
154.445	Dispatch/Alert	Avery Co Fire Assoc
154.010	Fireground	Avery Co Fire Assoc
154.250	Fireground	Avery Co Fire Assoc
155.295	Dispatch	Avery Central Res
155.280	Ops	Avery Central Res
155.340	Ops	Avery Central Res
155.280	Dispatch	Avery Co Rescue Sq
154.085	Dispatch/Ops	Boone Fire Dept
155.130	Dispatch	Boone Police Dept
155.655	Secondary	Boone Police Dept
154.875	Mutual Aid	Boone Police Dept
155.340	Ops	Avery Co Rescue Sq
155.520	Dispatch	Burke Co Sheriff
154.770	Ops	Burke Co Sheriff
154.875	Mutual Aid	Burke Co Sheriff
154.355	Dispatch	Burke Co Fire Dept
154.310	Fireground	Burke Co Fire Dept
155.280	Dispatch	Burke Co Rescue Sq
155.340	Ops	Burke Co Rescue Sq
462.950	MED 9	Burke Co EMS
462.975	MED 10	Burke Co EMS
463.175	MED 8	Burke Co EMS
155.565	Dispatch	Caldwell Co Sheriff
154.875	Mutual Aid	Caldwell Co Sheriff
155.535	Car/Car	Caldwell Co Sheriff
155.160	Dispatch	Caldwell Co Rescue
155.280	Ops	Caldwell Co Rescue
155.340	Ops	Caldwell Co Rescue
462.950	MED 9	Caldwell Co EMS
462.975	MED 10	Caldwell Co EMS
463.175	MED 8	Caldwell Co EMS
155.040	Dispatch/Ops	Crooked Creek Vol Fire
153.875	Fireground	Crooked Creek Vol Fire
154.205	Dispatch/Ops	Forest City Fire Dept
154.860	Patrol Ops	Forest City Police
154.875	Mutual Aid	Forest City Police
154.755	Car/Car	Forest City Police
155.160	Ops	Lenoir Rescue Sq
155.280	Dispatch	Lenoir Rescue Sq
155.280	Ops	Linville Rescue Sq

155.340	Ops	Linville Rescue Sq
155.100	Patrol Ops	Madison Co Sheriff
154.875	Mutual Aid	Madison Co Sheriff
155.040	Dispatch/Ops	Marion Fire Dept
155.010	Patrol	Marion Police Dept
154.875	Mutual Aid	Marion Police Dept
155.970	Car/Car	Marion Police Dept
154.370	Dispatch/Alert	Mars Hill Fire Dept
155.880	Patrol	Mars Hill Pol Dept
155.100	Secondary	Mars Hill Pol Dept
158.940	Patrol	Marshall Police Dept
155.100	Secondary	Marshall Police Dept
155.040	Dispatch/Ops	Mc Dowell Co Fire
153.875	Fireground	Mc Dowell Co Fire
155.010	Patrol	Mc Dowell Co Sheriff
154.875	Mutual Aid	Mc Dowell Co Sheriff
155.280	Dispatch	Mc Dowell Co Rescue
155.340	Ops	Mc Dowell Co Rescue
155.400	Ops	Mc Dowell Co EMS
463.175	MED 8	Mc Dowell Co EMS
155.370	Dispatch	Mitchell Co Sheriff
154.875	Mutual Aid	Mitchell Co Sheriff
155.730	Car/Car	Mitchell Co Sheriff
155.175	Ops	Mitchell Co Ambulance
155.280	Ops	Mitchell Co Ambulance
155.295	Dispatch	Mitchell Co Ambulance
155.340	Ops	Mitchell Co Ambulance
154.355	Dispatch/Ops	Morganton City Fire
155.520	Patrol Ops	Morganton Police
154.875	Mutual Aid	Morganton Police
037.180	Dispatch/Ops	Polk Co Fire Dept
155.580	Patrol Ops	Polk Co Sheriff
154.875	Mutual Aid	Polk Co Sheriff
156.030	Car/Car	Polk Co Sheriff
463.175	MED 8	Polk Co EMS
467.950	MED 9	Polk Co EMS
467.975	MED 10	Polk Co EMS
154.205	Dispatch/Ops	Rutherford Co Fire
154.280	Fireground	Rutherford Co Fire
154.860	Patrol Ops	Rutherford Co Sheriff
154.875	Mutual Aid	Rutherford Co Sheriff
155.850	Car/Car	Rutherford Co Sheriff
156.150	Special Ops	Rutherford Co Sheriff
155.220	Dispatch/Ops	Rutherford Cty. Lifesaving
155.280	Ops	Rutherford Cty. Lifesaving
155.340	Ops	Rutherford Cty. Lifesaving
155.220	Dispatch/Ops	Rutherford Co Rescue
155.280	Ops	Rutherford Co Rescue
155.340	Ops	Rutherford Co Rescue
463.175	MED 8	Rutherford Co EMS
467.950	MED 9	Rutherford Co EMS
467.975	MED 10	Rutherford Co EMS
154.205	Dispatch/Ops	Rutherfordton Fire
154.205	Dispatch/Ops	Spindale Fire Dept
154.860	Patrol Ops	Spindale Police Dept
154.875	Mutual Aid	Spindale Police Dept
155.850	Car/Car	Spindale Police Dept
154.280	Dispatch/Ops	Watauga Co Fire
155.130	Patrol Ops	Watauga Co Sheriff
154.875	Mutual Aid	Watauga Co Sheriff
156.090	Car/Car	Watauga Co Sheriff
047.500	Ops	Watauga Co Rescue
047.580	Ops	Watauga Co Rescue
047.620	Ops	Watauga Co Rescue
047.660	Ops	Watauga Co Rescue
155.160	Dispatch	Watagua Co Rescue
155.280	Ops	Watauga Co Rescue
155.340	Ops	Watauga Co Rescue
154.875	Patrol	Yancey Co Sheriff
155.730	Car/Car	Yancey Co Sheriff
155.220	Dispatch	Yancey Co Res Sq
155.280	Ops	Yancey Co Res Sq
155.340	Ops	Yancey Co Res Sq

SOUTH CAROLINA

Bill Estes Associate Editor, 117 Willard Bouknight Rd, Irmo, SC 29063

Master Listing of State of South Carolina Agencies

042.1000	A.B.C. Commission	Enforcement Div.
453.6250	Capitol Complex Police	Building Security
453.7500	Capitol Complex Police	Executive Security
045.4800	Disaster Preparedness	North
045.0800	Disaster Preparedness	South
155.0700	Police Intersystem	Charleston
155.0100	Police Intersystem	Conway
155.5350	Police Intersystem	Lancaster
460.0500	Police Intersystem	Midlands
155.4600	Police Intersystem	Pageland
460.2750	Police Intersystem	Peedee Region
453.4500	Police Intersystem	Piedmont
154.8300	Police Intersystem	Rock Hill
155.5500	Police Intersystem	Sumter
460.2500	Police Intersystem	Upstate
155.5800	S.C. Aeronautics Comm.	Drug Enforcement
154.6500	S.C. Aeronautics Commission	Operations
131.8000	S.C. Aeronautics Commission	Operations
037.1800	S.C. Dept. Of Agriculture	Operations
453.3000	S.C. Dept. of Agriculture	Field Ops
452.1250	S.C. Dept. of Corrections	Operations
452.2750	S.C. Dept. of Corrections	Operations
155.6400	S.C. Dept. of Corrections	Primary
453.5250	S.C. Dept. of Corrections	Work Release
155.8500	S.C. Dept. of Corrections	Administration
155.6850	S.C. Dept. of Corrections	Field Ops(Escapes)
458.6125	S.C. Dept. of Labor	Operations
155.1600	S.C. Dept. of Mental Health	Security
453.0500	S.C. Dept. of Youth Services	Maintenance
039.9600	S.C. Dept. of Youth Services	Primary

159.3750	S.C. Forestry Commission	Fire Control Area Use
159.4050	S.C. Forestry Commission	Fire Control Area Use
159.4500	S.C. Forestry Commission	Fire Control Area Use
159.2700	S.C. Forestry Commission	Statewide Operations
159.3000	S.C. Forestry Commission	Administration
047.2200	S.C. Highway Department	Road Maintenance
047.3400	S.C. Highway Department	Road Maintenance
047.3600	S.C. Highway Department	Road Maintenance
047.2800	S.C. Highway Department	Road Maintenance
154.9800	S.C. Highway Dept.	Weight Unit
042.0600	S.C. Highway Patrol	Base/Car
042.1000	S.C. Highway Patrol	Base/Car
042.3400	S.C. Highway Patrol	Base/Car(Midlands)
042.1200	S.C. Highway Patrol	Base/Car(North)
042.0800	S.C. Highway Patrol	Base/Car(South)
042.2600	S.C. Highway Patrol	Car/Base
042.1400	S.C. Highway Patrol	Car/Car
155.9550	S.C. Highway Patrol	POLICE INTERSYSTEM
154.6500	S.C. Law Enforcement Div.	Aeronautics
159.0900	S.C. Law Enforcement Div.	Input to 154.6650
158.9700	S.C. Law Enforcement Div.	Input to 154.6950
154.7700	S.C. Law Enforcement Div.	Input to 155.580
154.6650	S.C. Law Enforcement Div.	Investigations
154.6950	S.C. Law Enforcement Div.	Investigations
155.5800	S.C. Law Enforcement Div.	Narcotics
155.4450	S.C. Law Enforcement Div.	Nat. Law Enf. Freq
155.4750	S.C. Law Enforcement Div.	Nat. Law Enf. Freq.
158.9100	S.C. Law Enforcement Div.	Walkie Talkies
047.9000	S.C. Public Service Authority	Operations
155.7600	S.C. Public Service Comm.	Transportation
453.2250	S.C. State Ports Authority	Operations
453.2750	S.C. State Ports Authority	Operations
458.2250	S.C. State Ports Authority	Operations
453.4000	S.C. State Ports Authority	Police
151.3250	S.C. Wildlife Dept.	Aiken,Long MT
151.4450	S.C. Wildlife Dept.	Camden,Georgetown
151.2500	S.C. Wildlife Dept.	Input/Mobile Rpt
151.4150	S.C. Wildlife Dept.	Columbia,Florence
151.4300	S.C. Wildlife Dept.	Conway,Charleston
151.2950	S.C. Wildlife Dept.	Greenwood,Orangeburg
151.3700	S.C. Wildlife Dept.	Edgemore,Rock Hill
151.1600	S.C. Wildlife Dept.	Hampton,Little MT
151.3400	S.C. Wildlife Dept.	Sumter

VIRGINIA

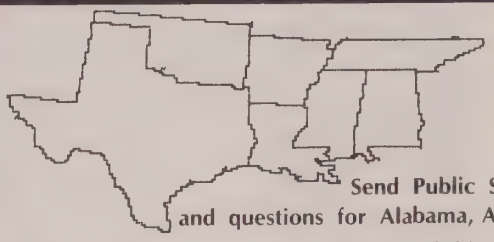
Landon Davis, Associate Editor, 2807 Rifle Ridge RD, Oakton,VA 22124

From: David (VA-094)

155.295	Dispatch	Ashland Vol Rescue SQ
155.265	Dispatch	East Hanover Vol. Rescue
155.205	Mutual Aid	East Hanover Vol. Rescue
155.385	Hospital/Medic	East Hanover Vol. Rescue
155.340	H.E.A.R.	East Hanover Vol. Rescue
033.820	Dispatch/Alert	Goochland Cty. Fire Dept.
155.940	Operations	Goochland Cty. Fire Dept.
154.100	Dispatch	Goochland Cty. Sheriff
154.770	Secondary	Goochland Cty. Sheriff
155.430	Ops/Rescue	Hanover County Sheriff
156.030	Patrol Ops	Hanover County Sheriff
158.760	Dispatch/Alert	Hanover County Fire Dept.
154.010	Fireground	Hanover County Fire Dept.
158.895	Dispatch	King William Fire/Rescue
039.480	Dispatch	King William Cty. Sheriff
039.540	Mutual Aid	King William Cty. Sheriff
460.375	Patrol	King William Cty. Sheriff
155.235	Dispatch	Lakeside Vol Rescue SQ
155.175	Dispatch	Tuckahoe Vol Rescue SQ

That wraps up the material for this month. Keep the data flowing into your State editor. Until next month.

Robert



PUBLIC SAFETY - SOUTH CENTRAL

Send Public Safety and Special Emergency frequencies, radio system details, and questions for Alabama, Arkansas, Louisiana, Mississippi, Tennessee, Oklahoma, and Texas to

Ed Lentz, 609 Yorkshire, Pasadena, TX 77503-1450

GEnie - ELENTZ DELPHI - THISARSE COMPUSERVE - 72645,172

Hello and glad to have you with us again. If you are a new member welcome aboard. Hopefully we can help you expand you knowledge of the scanning hobby and enjoy it to the fullest. Now on to the Assistant Editors.

Oops, I have an announcement to make. WE now have a new Assistant Editor. He is Will McGilvray from the State of Mississippi. Will tells me that he is retired from the Air Force and was an Aviation Cadet at Ellington Air Base just down the road from my house. He retired some years ago and has been monitoring the Aviation bands the last few years. Welcome aboard, Will, and hope you get as much out of this as the rest of us. If any of you have any information for the State of Mississippi, please send it to Will. His address is:

WILL McGILVRAY, MS-034
111 Kencrest Drive, Gulfport, MS 39503

Now I am going to turn this over to the Assistant Editors.

ALABAMA

DAVID R. BECK, 422 Laurie Drive, Birmingham, AL 35214

No input from Alabama members this month. City of Homewood Fire Department has moved from lo band to 460.625 recently. City of Graysville (a northwestern suburb of Birmingham) has moved from lo band to the Jefferson County Sheriff Department's new 800 mhz trunking system. As far as I know, this is the only municipal police department that has joined the 800 mhz trunk. Rumor has it that the other surrounding municipalities are being asked to join the trunk but high cost of new 800 mhz equipment must be considered.

Hopefully there will be room for a map of the Alabama Department of Emergency Management radio system included with this column. The DEM is the replacement for the Civil Defense of some years ago.

ARKANSAS

We are still looking for an Assistant Editor for the State of Arkansas. If you have even a remote idea that you would be interested, please let us know.

LOUISIANA

JEFF W. WALDROP, 1018 Bee Tree Street, Westlake, LA 70669

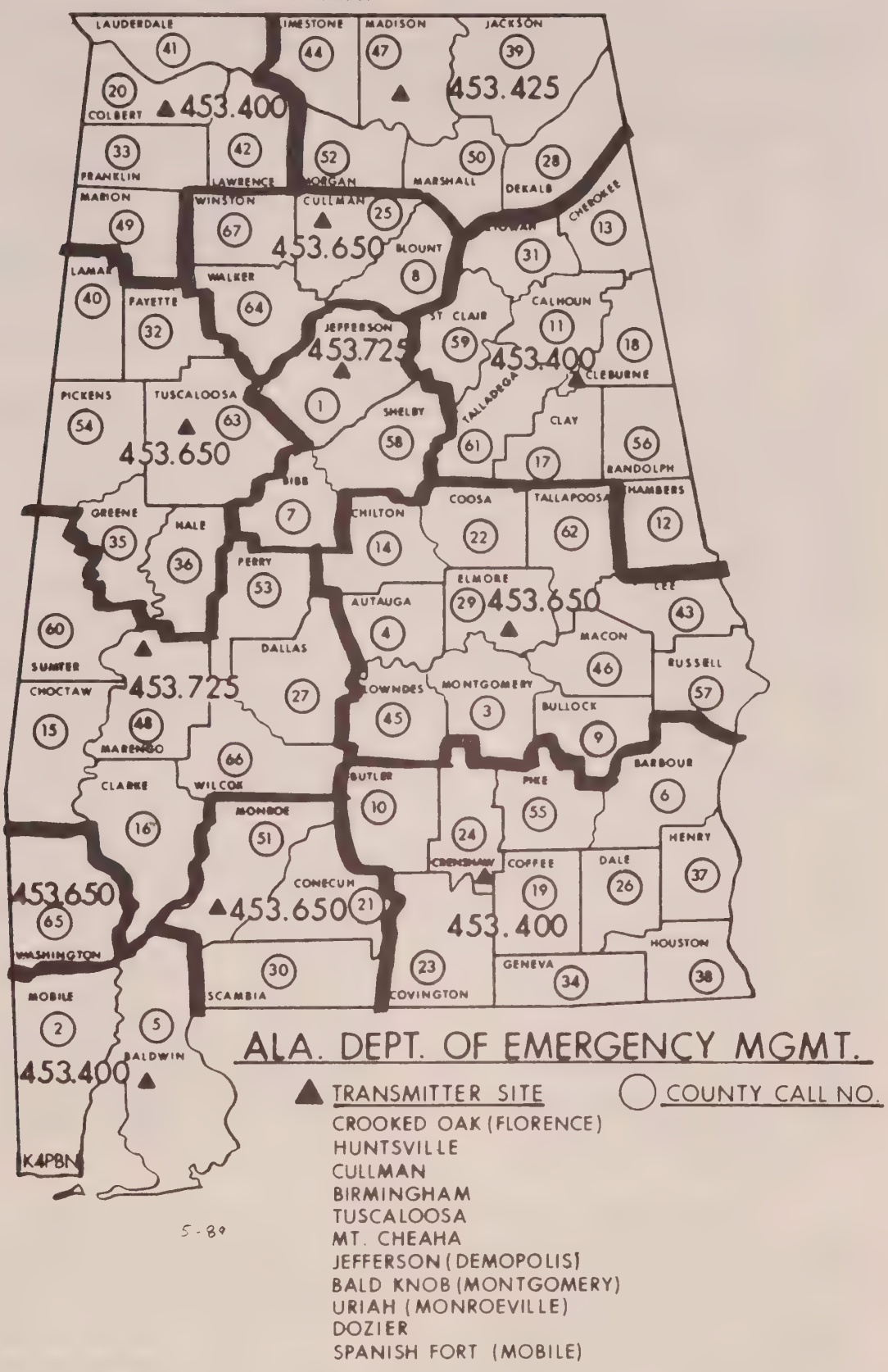
Well, hello, Louisiana. I am starting to receive a little input from good people just like you! You guys here in Louisiana are doing just great. And I am even pleased with the contributions from those elsewhere. Raymond, out of Shreveport, LA., forwarded a nice newspaper clipping to me along with a few frequencies for the Louisiana State Police. Here in Louisiana, we are starting to see a new style of Police Vehicle. For years, we were used to seeing those white Chevy Impalas or Caprices. Now we have two midnight Blue, Fuel Injected Ford Mustangs assigned to our nine Troop HQ's. The new Mustangs come customized with a 5.0 liter, 235 horsepower engine. These cars also include special tires, oversized clutch, heavy-duty suspension and transmission. The dark blue paint with gold striping matches well with the trooper's uniforms. These vehicles can quickly lunge to 130 mph. These 18 vehicles will be closely evaluated for performance and necessity. They are also used in Texas, California, Florida, and a few other states. With lights hidden behind the grill these vehicles are unnoticeable when directly behind you. At this time the state has no plans to purchase any additional Mustangs!

We have these two sets of frequencies slated for the State Police:

Bellevue Repeater		**Ringold Repeater**	
856.4375	856.9875	856.2375	856.7625
857.4375	857.9875	857.2375	857.7625
858.4375	858.9875	858.2375	858.7625
859.4375	859.9875	859.2375	859.2375
860.4375	860.9875	860.2375	860.2375

At this time, myself as well as the gentleman who contributed these items, would like to ask that anyone who has further information on the new 800 MHz system that the State Police are using, please forward that on to me. If someone can confirm the above frequencies, that would also be appreciated.

I encourage anyone who runs across a magazine or newspaper article related to any mode of Radio Communication for the State of Louisiana, please forward. I will certainly take a moment to thank anyone for their contribution. If nothing else, I will see you all next month.



ALA. DEPT. OF EMERGENCY MGMT.

▲ TRANSMITTER SITE ◯ COUNTY CALL NO.

CROOKED OAK (FLORENCE)
HUNTSVILLE
CULLMAN
BIRMINGHAM
TUSCALOOSA
MT. CHEAHA
JEFFERSON (DEMOPOLIS)
BALD KNOB (MONTGOMERY)
URIAH (MONROEVILLE)
DOZIER
SPANISH FORT (MOBILE)

MISSISSIPPI

WILL McGILVRAY, 111 Kencrest Drive, Gulfport, MS 39503

Ok folks. You now have an Assistant Editor for the State of Mississippi. Please support him in his efforts to keep us informed in the latest in frequency information from this area. Send your frequency list and other radio information to the above address.

OKLAHOMA

JAY KRUCKENBERG, Rt. 2, Box 31, Mooreland, OK 73852

Greetings, Oklahoma. There was no mail in the mailbag this month so I thought I would print a list of the Oklahoma 10 codes. Oklahoma does not use many of the APCO standard 10 codes and some times

a complete listing is hard to find. This list is complete and accurate for the entire state. Some cities add there own signals to the list but those are primarily confined to the bigger cities.

Next month I will include some more frequencies from Richard's (OK–050) list from around the Tulsa area and anything else anyone wants to send in.

OKLAHOMA 10 CODES

10–10	Out of service – subject to call
10–11	Dispatching to rapidly
10–12	Visitors present
10–14	Escort
10–15	Prisoner in custody
10–16	Pick up prisoner at _____
10–17	Pick up or serving papers at _____
10–23	Officer in trouble at _____
10–24	Trouble at station, units report at once
10–25	Do you have contact with _____
10–26	Motorist assist at _____
10–27	Any answer our number
10–31	Breathalizer operator report to ___
10–32	Is breathalizer available?
10–34	Clear for local dispatch
10–35	Confidential information
10–37	Operator on duty?
10–38	Station report OK
10–39	Your message delivered
10–40	Advise if officer _____ is available for radio call
10–41	Traffic record summary
10–42	Complete drivers license record
10–43	Drivers license status
10–44	Check for record/wanted with ____
10–45	Meet at _____
10–46	Meet for vehicle or DL check
10–47	Subject in question is possibly armed & dangerous or wanted
10–48	NCIC hit. Is it safe to copy information?
10–49	10–28 with amount of registration & weight paid
10–50	No calls
10–51	Pick up your partner for road block assignment at _____
10–52	Set up road block, authority _____
10–53	Discontinue 10–52
10–54	ETA
10–63	Radio net directed to _____
10–64	Radio net free
10–67	Station _____ carry this item
10–68	Repeat dispatch
10–69	Have you dispatched _____
10–70	Stopping vehicle, may be dangerous, description & location to follow
10–71	Officer is clear from 10–70
10–72	Information incomplete – no action taken until further information is furnished
10–73	Information is not in proper form
10–80	Private vehicle making emergency run
10–84	Report to _____ for information
10–85	Keep vehicle under surveillance, DO NOT STOP
10–86	Pick up your partner
10–87	Aircraft assignment at _____ at _____
10–90	Officer welfare contact
10–97	Arrived at scene
10–98	Last assignment completed

SIGNAL 8	Civil disturbance
SIGNAL 9	Bomb threat
SIGNAL 11	What is my readability?
SIGNAL 12	General test
SIGNAL 13	Unable to copy, change location & repeat
SIGNAL 21	Urgent or emergency traffic
SIGNAL 30	Fatality accident
SIGNAL 31	Drowning at _____
SIGNAL 76	Accident, seriousness unknown
SIGNAL 77	General emergency
SIGNAL 79	Call your unit
SIGNAL 81	Minor accident
SIGNAL 82	Major accident
SIGNAL 83	DPS vehicle involved in accident
SIGNAL 84	Report to SO or PD at ____
SIGNAL 87	Intoxicated pedestrian
SIGNAL 88	Intoxicated driver
SIGNAL 89	Hit & run
SIGNAL 93	Report to OKC garage for repairs or exchange

TENNESSEE

CURTIS HARBIN, P.O. Box 5576 E.K.S., Johnson City, TN 37603–5576

On Dec 24, 1989 a devastating fire happened in downtown Johnson City. Shortly after 5:00 PM a fire broke loose in the John Sevier Center. The building housed elderly and retired people. The building had no sprinkler system what so ever. All Johnson City fire personnel and rescue units were called into service. The building was fully engulfed when I arrived shortly after 6:00 PM. Sub zero weather made life unbearable to say the least for everyone.

After Johnson City Fire Dept. realized they needed help, a call was made to all surrounding fire and Ems units to assist with the 9 alarm fire. Units from as far away as Morristown and Bristol TN arrived and helped battle the blaze and smoke. Radio traffic was unbelievable to say the very least. The fire dept and rescue personnel worked till 4:00 AM Christmas morning fighting the blaze and smoke and getting people out. 16 people died in this fire. Less than 2 months ago, a fire in the same building took the life of 2 people when a Kerosene heater was filled with gas instead of kerosene.

The city's new trunk system performed flawlessly! Traffic control was on one Tac channel while fire was on another Tac channel and routine traffic, what little bit there was, was on Dispatch Sub–Fleet. Of course, EMS traffic was going hot and heavy as well.

Two temporary morgues were set up to handle the bodies. Med Flight was flying around the building assisting with lighting and taking any burn victims to hospitals in the area and as needed to Knoxville or Chattanooga. Just this weekend (12/30/89) the police allowed the residents back in the building to retrieve what belongings they could salvage of theirs.

The following frequencies were used at the fire: 856.2375 thru 860.2375, 154.250, and 155.205 EMS Channel. Various Fire Depts who assisted were using portable loaned to them on the SMR system. All EMS traffic was on 155.205 and 155.340 Ambulance to Hospital.

The fire in downtown Johnson City was a sad note on this holiday season. People lost belongings, as well as their lives. Firemen, Police, and EMS personnel were also treated for smoke inhalation.

A great big "THANK YOU" for a job well done goes out to the men and women who fought and assisted with the fire. A thank you just doesn't seem like enough to these professionals!! Our heart goes out to the residents of the John Sevier Center and to the families who lost their loved ones there.

From Jim (TN-024) comes these frequencies:

155.070 Lake Tansi (Crossville,TN) City and County Police
159.240 Tenn. Game & Fish Commission - Crossville Area
155.610 Bledso County Police 155.640 Picket & Rhea County Police

TEXAS

ROBERT BARKER, 1801 Wells Branch Pkwy #1630, Austin, TX 78728

Hello, Texas. Not too much activity this month. In fact, I only received one letter the whole month. Jérome (TX-246) writes from the Alamo City to update me on some activity in his area. Although the city of San Antonio is primarily active on their trunked 800 Mhz radio system, the Fire Dept can still be heard on the old 154.430. He goes on to say that Leon Valley began operating its own EMS unit as of October. When an EMS or fire call is dispatched, it can be heard on both the regular PD channel of 154.725 and the fire channel of 154.145. Leon Valley also despatches for Helotes units which can be identified as the 576 - 579 series unit numbers. Both Leon Valley and Balcones Heights are on 155.910. Channel 2 is 154.995. Both are well known for their "aggressive preventive traffic patrols". They will stop vehicles for the least apparent traffic violations. Jerome also has a request for frequencies. He is currently looking for St. Mary's University, which used to be active on 464.000. Apparently the officers aren't being too helpful about giving hem the frequency. I'll bet that they don't even know what it is - most officers don't have a clue. If anyone has frequencies for the counties of Atascosa, Bandera, Comal, Guadalupe, Kendall, Medina or Wilson, Jerome is looking for info on those counties also. I got a telephone call from Russell, who is looking for frequencies for any border town and anything just inside Mexico. If you forward them on to me, I'll be happy to get them to him.

I'm getting numerous questions from members regarding DPS use of frequencies. All I can say is that if I don't get any input, I'm unable to report what's going on throughout the state. And with that in mind, I'll close for the month and will be checking the mailbox daily. Happy Monitoring.

My turn again, Robert. Received word the other day that Harris County will be accepting bids for the 800 MHz trunked system. They hope to be online by May 1990. At this time I do not have any frequencies except what is listed in "Police Call". Hopefully next month I will have a complete list of frequencies along with additional information of who will be on the system. I expect that all the County Public Safety agencies, (Sheriff's Office, Constables, District Attorney, etc) will be on the system.

In talking with an official with the Houston Fire Department the other night about the EMS service in the City of Houston I found out that there will be a change in the works. As it stands now, there are two categories of Ambulances in the City now. You have the Basic Life Support and Advanced Life Support ambulances. Whenever there is a major medical emergency the standard dispatch will be the "710 Page" which goes out to both EMS Supervisors, then the nearest Pumper truck, and both an Advanced Life Support ambulance and a Basic Life Support (Band Aid Truck) ambulance. This will change. They will all be Basic Life Support ambulances in the future. The Paramedics will ride in Suburbans and be dispatched as needed much like the '710 Page' is done now. At this time I don't know what number series will be used by the Paramedics vehicles. Thanks, guys, keep up the good work. This is the first time in several years that I have had to delay publication of material due to lack of space.

Are You Renewing?
Are You Changing Your Address?

If you are renewing your RCMA membership, please return the Renewal Notice Card you receive in the mail. It's the best way to ensure uninterrupted delivery of your newsletter. If you lose the card, be sure to write your membership number on your check or money order.

If you are moving, please let us know your new address before the end of the month prior to the move. Otherwise, your Post Office will return the issue to our Anaheim P. O. Box—a process which has taken as long as three months. The result is that RCMA will pay 30 cents per notice, you will miss at least one issue, and you'll have to pay for replacement issues.

A reminder concerning a `late' newsletter: We do not replace lost issues until the 20th of the month of the actual cover date. So, please wait to write or call until that time.

PUBLIC SAFETY—GREAT LAKES

Send Public Safety and Special Emergency frequencies, radio system details, and questions as follows-Illinois, Indiana, Wisconsin, Michigan, Kentucky, and Ohio:

Richard McLaughlin (MI-031) 3921 Marland Drive, Lansing, MI 48910

Editor Needed for Public Safety—Great Lakes

Interested? Contact RCMA General Editor
William Mauldin, 961 Azalea St, Boca Raton, FL 33486

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Lansing, MI 48910–4325

OH – POSITION VACANT

WI – John Johnson WI–084
1905 E Lexington Blvd.
Eau Claire, WI 54701–6673

Some of you may have noticed the "Captain's Desk" column in the February issue reported a new appointment for editor for Great Lakes/Public Safety. That was a misprint. However... I had decided (before that was printed, it was not meant to be a hint) to step down as editor and allow one of you the opportunity to represent the RCMA as an editor. If you are interested, please send a card or letter to Bill Mauldin, 961 Azalea St, Boca Raton, FL 33486. I will stay on until Bill has a replacement, and I plan to stay on as AE for Michigan.

I L L I N O I S Bob sent us a list of district codes, locations and frequencies for the Illinois State Police that he got from a knowledgeable, but shy, source.

DIST	LOCATION	BASE	MOBILE	DIST	LOCATION	BASE	MOBILE
1	Sterling	42.52	42.72	12	Effingham	42.52	42.72
2	Elgin	42.62	42.68	13	DuQuion	42.60	42.68
3	Chicago	42.56	42.88	13A	Cairo	42.60	42.68
4	Crestwood	42.34	42.66	14	Macomb	42.60	42.70
5	Joliet	42.60	42.80	16	Rockford	42.44	42.70
6	Pontiac	42.52	42.72	17	Lasalle	42.46	44.70
7	RockIsld	42.34	42.84	18	Litchfld	42.34	?
8	Peoria	42.36	155.520	19	Carmi	42.46	?
9	Springfld	42.66	154.935	20	Pittsfld	42.62	42.68
10	Pesotum	42.54	154.665	21	Ashkum	42.44	42.84
11	Collinsville	42.56	42.70				

I N D I A N A Dave received several contributions, this month we will look at Ft Wayne PD and Allen Co Sheriff, sent in by Larry IN–112. Thanks Larry, how did you know I was going to Ft Wayne next month?

FT WAYNE PD		ALLEN CO POLICE		
F1	155.610	Information	154.860	Jail
F2	155.535	South Dispatch	155.130	statewide
F3	155.790	North Dispatch	155.250	Main dispatch
F4	155.670	Detectives	154.770	?
F5	156.090	?	460.475	?
	460.200	Vice/Narcotics	154.890	mobile

Larry also sent us radio code sheets for the two departments.

FORT WAYNE COMMUNICATIONS DEPT. RADIO CODES

1	Meet	51	Theft
2	Disregard	52	Shoplifter
3	TX	53	Robbery-Armed
4	Police station	54	Robbery In Progress
5	Police garage	55	Fight
5f	Fire Garage	56	Molesting
5g	Gasoline Pumps	57	Robbery Strong Arm
6	Communications	58	Shooting

6r	Radio Repair
7	In Service
8	Out of State
9	Arrived on Scene
10	Give Location
11	Pick up Prisoner
12	County Jail
13	Ambulance
14	Warant Clerk
15	Assist Party
16	Make Pick Up
17	Read Motor Number
18	Work Traffic
19	Escort
20	Problem Unknown
21	Adults
22	Juveniles
23	Vandalism
24	Lost Child
25	Auto Accident
26	Auto Accident-Injury
27	Reckless Driving
28	Drunk Driver
29	Drag Racing
30	T.V. Stopped
31	Drunk-O-Meter
32	Street Box Alarm
33	Vehicle Disabled
34	Traffic Hazard
35	Parked Car-Occupied
37	Illegal Parking
38	Stealing Vehicle
39	Stolen Vehicle
40	Alarm (Bank etc.)
41	Man Down
42	Drunk
43	Disturbance
44	Nuisance (Smoke etc.)
45	Neighborhood Trouble
46	Family Trouble
47	Removal of Articles
48	Suspicious Person
49	Prowler
50	Break In
59	Stabbing-Cutting
60	Homicide
61	Rape
62	Party Armed
63	Attempt to Contact
64	Party not seen
65	Suicide
66	Demented Person
67	Indecent Exposure
68	Protect Evidence
69	Wires Down
70	Fire
71	Explosion
72	Failure to Pay
73	Walk Away
74	Unruly Crowd
75	Riot
76	Road Block
77	Strike Duty
78	Dog Bite
79	Confidential Indermation
80	Give Call Letters
81	Change Channel
82	Improper Procedure
83	Advise Disposition
84	Urgent
85	At Once
86	City Property Involved
87	On Duty
88	Off Duty
89	Bomb Threat
100	Hold all but emergency traffic
EMS	A-Good
	B-Fair
	C-Critical
WIRE 700	Disaster Signal
701	False Alarm
702	We Can Handle
703	Small Working Fire
704	Working Fire
705	Send Extra Pump
706	Second Alarm
707	Board Up Building
708	Arson

ALLEN COUNTY POLICE DEPARTMENT RADIO CODES

1 -ACCIDENT
2 -AMBULANCE
a-Ambulatory
b-Bad
c-Critical
d-Dead
3 -JAIL
4 -OFFICE
a-Lock-Up
b-Byron Sta.
c-Humane Shelter
r-Radio
5 -BLOOD RUN
6 -BREAK IN
7 -ALARM
a-Audible
b-Silent
8 -MEET
9 -DISREGARD
10 -RUSH-QUICK ACTION
11 -LOCATION
12 -DESTINATION
13 -DEMENTED PERSON
24 -PARKED VEHICLE
a-Occupied
b- Unoccupied
c-Traffic Hazard
25 -INDECENT EXPOSURE
26 -INVESTIGATION
a-Theft
b-Vandalism
c-Attempt to Locate
d-Battery
e-Death Investigation
f-Death Notification
g-Deliver Message
h-Disturbance
i-Firemans Investigation
j-Found Items
k-Illegal/Trash Dumping
l-Open Door/Window
m-Threats
n-Unwanted Person
27 -STOPPING CAR
28 -WORK TRAFFIC
29 -STAFF MEETING

14 -DROWNING
15 -DRUNK
16 -AIRCRAFT ACCIDENT
17 -OUT OF COUNTY
18 -BACK IN COUNTY
19 -VEHICLE CHECK
20 -FAMILY FIGHT
21 -FIGHT
22 -CAR REPAIR
  a-Car Wash
23 -RECKLESS DRIVING
  a-Aircraft
  b-Auto
  c-Go Karts
  d-Mini Bikes
  e-Motorcycles
  f-Snowmobiles

30 -MURDER
31 -MOLESTING
32 -PARTY ARMED
33 -KNOWN BURGLAR
34 -SUICIDE
35 -PRISONER
36 -PROWLER
  a-Window Peeper
37 -RAPE
38 -ROBBERY
  a-Armed
  b-Strong Armed
39 -SHOOTING
  a-Cutting
40 -SUBJECT WANTED
41 -STRIKE

42 -JUVENILES
43 -TX
44 -TRIP
  L-Logansport
  M-Marion
  MC-Michigan City
  R-Richmond
  SF-State Farm
  SR-State Reformatory
  W-Westville
  WP-Women's Prison
45 -MAY STONE & SAND
46 -AGGREGATE
48 -AT THE PUMP
49 -KIDNAPPING
50 -RIOT
52 -NEIGHBORHOOD PROBLEM
  a-Loud Party
53 -SHOPLIFTER
54 -COMPUTER DOWN
55 -ASSISTING MOTORIST
56 -GRABILL
  a-In Grabill
  b-Out of Grabill
57 -WOODBURN
  a-In Woodburn
  b-Out of Woodburn
60 -CODE A
61 -BOMB THREAT
  a-Suspect package
  b-Explosion taken place
  c-Pick up of explosive items such as blasting caps, dynamite, war souveniers, etc.

62 -CONFIDENTIAL INFORMATION
75 -IN PURSUIT
80 -GIVE CALL SIGN
88 -IS SITUATION UNDER CONTROL?
89 -SITUATION IS UNDER CONTROL
90 -OFFICER NEEDS ASSISTANCE
100 -EMERGENCY (Hold all but emergency traffic)
X -EXTREME CAUTION
10-37 -INVESTIGATE SUSPICIOUS VEHICLE
  a- Suspicious Person

FIRE DEPT. CODES

701 -FALSE ALARM
702 -UNIT CAN HANDLE
703 -SM. WRKG. FIRE
704 -WORKING FIRE
705 -SEND NEXT PUMP
706 -2ND ALARM (OLD 2-2)
707 -SEND ARSON INVESTIGATOR
708 -SEND FIRE PREV.
709 -CONTACT NEW ME

K E N T U C K Y We have a new AE for Kentucky, William Gourley, please send your contributions to him at the address at the beginning of the column. Until he gets some letters though, he has to send us part of his files.

39.50	Allen County, Scottsville	154.25	Arlington Fire Dept
39.76	Auburn City of	155.16	Ballard Co Ambulance
154.025	Ballard Co DES	151.01	Ballard Co Road Dept
154.785	Ballard Co Sheriff	460.05	Ballard Co Sheriff
154.31	Bandana FD	154.98	Bardstown City of
154.22	Bardwell FD	154.37	Barlow FD

MICHIGAN

ATTENTION! - NEW SCANNER LAW IN WORKS!

The Legislature is considering changes to the Michigan law which restricts the use of scanners in motor vehicles. I have a copy and it looks like the only change so far is to ADD Technician class radio amateur licensees to those allowed to monitor without a permit. The Senate Bill is #626 and is currently in the Senate Judiciary Committee. If you wish to comment on this bill, write to the committee in Lansing, or to your state legislator and voice your opinion. Also, I plan on attending any hearings on this to keep on top of it (I work about a block away from the capitol), so I would appreciate any ammunition you can send me. If anyone out there has been keeping a file of newspaper clippings on scanners and their benefits, please let me know. Maybe we can get them to repeal the whole thing!

Peter, MA-155, has some questions for the Detroit area.

1. What frequency are Detroit Fire portables on usually?

2. What frequency is used by the crash rigs at Wayne County airport? (I am not sure Peter, do you mean Detroit Metro Airport? ED)

3. Are any Detroit area police or fire depts. moving to 420MHz? (Thank you Canada for stealing our amateur frequencies! ED) Send your answers to me and I will put them in the column for all to see.

Also, Michigan members, I am resigning as Great Lakes Editor, but I will stay on as Associate Editor for Michigan, please keep sending me your contributions!

O H I O Oscar Mann has resigned due to illness. I would like to publicly thank Oscar for the contributions he has made to this column and wish him the best. If anyone would like to take over Oscar's position, please write to Bill Mauldin, 961 Azalea St, Boca Raton, FL 33486.

W I S C O N S I N Now we hear from our AE, John . . .

Welcome to the Wisconsin portion of PS/GL. I have a lot of input this month, so lets start off with the new frequency applications. Thanks to Larry (WI-005) for these again.

153.935	Caledonia LG (Racine)	155.715	Hancock LG (Waushara
453.900	Silver Lake LG (Waushara)	153.875	Stettin LG (Marathon
155.040	Stettin LG (Marathon)	453.4875	Bear Crk LG (Outagamie
453.4375	Sheboygan LG (458 in)	462.9375	Green Lake Spec. Emer.
153.890	Sheboygan County FD's	453.5875	Hudson LG (St Croix
155.400	State Spec Emer (Racine)	154.130	Greenwood FD (Clark
154.055	Dunn County LG	453.5875	New London LG (Waupaca
453.4875	Ellsworth LG (Pierce)	154.770	Wausau PD (Marathon
151.235	Endeavor FD (Marquette)	453.0375	UW - Plattevil (no rpt
46.380	Whitewater FD (Walworth)	458.0375	UW - Plattevil (no rpt

Larry also wanted me to thank Carl (WI-054) for the information of the new Sheboygan PD 800 MHz frequency and as of today reports no activity on the frequency. Also I would like to report that the Eau Claire PD new dispatch frequency of 155.640 is being simulcast with 155.130 as of today (1/15/90). I am sure this won't be for long, but we do have some activity on the new one. Also ECSD has DVP on 154.920 (F2) now. This is something new up my way. No activity on the new ECFD frequency yet. I received a nice letter from Linda (WI-116) who requested some information on the Milwaukee area ambulance services. She would like to have the special emergency freqs for Milwaukee and North Shore paramedics. Also, she would like the frequencies for Curtis and Bell ambulance services. She reports the frequencies for Paratech ambulance is 464.575 dispatch and 464.4625 for mobile to mobile. If you can help Linda out, please drop me a note.

Thomas (MI-216) sent in to following frequencies for the Ashland area.

153.890	Washburn County LG	154.400	Ashland City FD
154.740	Bayfield SD	154.830	Douglas SD
154.860	Bayfield SD	154.980	Washburn LG
155.145	Drummond LG	155.910	Bayfield SD
156.240	Ashland Co Hwy	158.850	Ashland SD

Next month I'll have some freqs from Thomas for Wausau and Green Bay areas. -John

That's all for now. Monitoring....

PUBLIC SAFETY NORTH CENTRAL

Send Public Safety and Special Emergency frequencies, radio system details and questions as follows—Iowa, Kansas, Minnesota, Missouri, Nebraska, North and South Dakota:

Michael Redman, P. O. Box 49, High Ridge, MO 63049

Greetings! Welcome to PS-North Central. As we approach Spring in the North Central region, remember the local civil defense and ham radio nets when tornado watches threaten. (For those interested in the tornado spotter plan using ham radio in an around St. Louis, look up my article in the June, 1984 "QST".) Let us know about spotter nets in your area on the public safety bands, and let Gordon West know about the amateur radio nets in your area. If you're not a ham and not taking part, get your license and get in on the action! Something else that amateur radio operators help out with is emergency communications after a disaster, like a tornado or earthquake. While hams were active after the Loma Prieta earthquake, many in the midwest are preparing for the possibility of a quake along the New Madrid fault zone-a quake which, if strong, could effect at least seven states. Whether you are a ham operator or not, if you live in the midwest you WILL be effected by such a tremor. There are a number of low-cost things you can do to help make your home, school, or workplace safer, and you can get free earthquake safety information in the midwest by writing to the Central United States Earthquake Consortium, 2630 Holmes Road East, Memphis, Tennessee, 38118. We welcome this month our newest Associate Editor, James Hoover, reporting for Nebraska. If you live in Nebraska, travel through Nebraska, or ever heard of Nebraska, drop Jim a line and welcome him! Send him some material, too, so he can be a regular contributor. You can reach Jim at 1628 York Avenue, York, NB. 68467. On, now, to this month's columns.

NORTH DAKOTA

AN ASSOCIATE EDITOR IS NEEDED
SEND MATERIAL TO
MICHAEL REDMAN

SOUTH DAKOTA

AN ASSOCIATE EDITOR IS NEEDED
SEND MATERIAL TO
MICHAEL REDMAN

MISSOURI

BY MICHAEL REDMAN
P.O. BOX 49
HIGH RIDGE, MISSOURI 63049

Greetings! Here in Missouri, there are several frequencies used for severe weather watch activity. Our St. Louis County amateur net uses 146.940 Mhz. (R). From the St. Louis County E.O.C. you may hear the Civil Air Patrol using 148.150 Mhz. (R), and they may be adding a G.M.R.S. UHF repeater for those so equipped, for the reporting of severe weather. Local alerts are broadcast on 155.865 & 154.725 Mhz. we will catch up on some new frequency requests for Missouri. Let me know what becomes active, uses, etc. for any of these:

Nodaway County Ambulance	155.100, 453.200(extenders)
Western Missouri Correction Ctr.	155.025 (Cameron)
University of Missouri-Columbia	155.550, 155.415, 155.370
Excelsior Springs Housing Auth.	453.775 (mobile)
Cooper County Emergency Management	155.805, 153.740
Macon Rural Fire Dept.	154.205, 154.280
Jackson County	151.340 (R), 153.860 (M)
City of Warrenton	155.865
Worth County	45.480
Laclede Co. Water District 3	154.115 (Lebanon)

Be sure to send in your local materials, and don't forget the S.A.S.E. The thought for the month is, "Arrogance causes nothing but trouble. It is wiser to ask for advice."(PR.13:10, T.E.V.)

KANSAS

BY STEVE JESTER
1115 NORTH PARK
WELLINGTON, KANSAS 67152

From an anonymous Kansan come these statewide frequencies:

39.200	Kansas wildlife and parks
39.460	Statewide intersystem
39.780	Kansas wildlife and parks
44.820	Kansas Highway Patrol mobiles, pr.w/44.980
44.940	Kansas Highway Patrol base
44.980	Kansas Highway Patrol base
45.140	Kansas Highway Patrol aircraft
45.180	Kansas Highway Patrol mobiles
155.310	Kansas prison system

And these Barton County frequencies:

39.900	Countywide Civil Defense
39.320	Sheriff Channel 5, low power
39.580	Statewide Mutual Aid
453.050	Great Bend PD, Channel 2, Patrol, (Repeater)
453.150	Sheriff, Channel 1 (Repeater)
453.250	Great Bend PD, Channel 5, Tactical (Simplex)
453.600	Sheriff, Channel 16, car to car (Simplex)
453.850	Great Bend PD, Channel 6, Detectives (Simplex)
453.950	Great Bend FD, Dispatch (Repeater)
460.450	City of Ellinwood PD, car to car (Simplex)
460.600	Hoisington FD Dispatch (Repeater)
462.975	Great Bend EMS Dispatch, Med 10 (Repeater)
463.150	EMS patch to hospital, Med 7 (Repeater)

60 & 70 series units are sheriff & deputies, 80 series units are jail personnel, 90 series units are dispatchers, 900 series units are reserves, 300-309 are GBPD administration, 310-319 are patrol, and 320 and up are detectives. The 100 series is Claflin PD, 250 series is Hoisington PD, and there is a Pawnee Rock #1, and Ellinwood 1 to 6.

And this material for Stafford County:

39.220	Countywide channel 1
39.580	Mutual Aid, Stafford & St. John PD Dispatch
151.040	County road dept., County FD pagers & dispatch
154.040	Stafford City, some PD dispatch
154.145	County Fire/tactical
155.340	Hospitals/Ambulance
158.820	City of St. John/Little PD Dispatch
159.150	Sheriff High Band/most sheriff dispatch

530 series are Sheriff & deputies, 540 series are dispatchers, 550-554 is Stafford PD, 556-580 are reserves, and the 580 series is St. John PD.

We will have more from this region next month, as well as Sedgwick Co.

NEBRASKA

AN ASSOCIATE EDITOR IS NEEDED
SEND MATERIAL TO
MICHAEL REDMAN

From an anonymous member are these Omaha area frequencies:
Sarpy County F/R Dispatch:

33.860	Bellevue F/R, BM
39.900	Gretna F/R, BM
39.980	LaVista F/R, BM
39.900	Papillion F/R, BM
39.900	Springfield F/R, BM

Miscellaneous frequencies:

39.900	NE, S.P. mobiles
42.180	NE, S.P. mobiles
42.280	NE, S.P. mobiles
42.340	NE, S.P. mobiles
46.560	Papio Natural Resource District (not 45.56)
47.420	Red Cross
154.085 (R)	(158.805 M) Eppley A.F., Maint.
154.235	Unknown vehicular repeater

154.325	Vehicular repeater, repeats 39.980 (fire marshall?)
155.640 (R)	(158.970 M) Eppley A.F. Police
453.350	Fontenelle Forest (R)
453.400	Valley Fire (R)
453.775	NE Dept. of Roads, administrative (R)
854.9875	University of Nebraska medical center security (R)

MINNESOTA

BY JERRY ENSIGN
P.O. BOX 28148
CRYSTAL, MINNESOTA 55428-0184

Minnesota State Patrol

District	Base	Mobile	Other
2100 Rochester	154.920	158.910	ch 2 154.695 452.975/457.975
2200 Mankato	154.935	159.360	? 452.300
2300 Marshall	154.665	159.390	
2400 St. Paul	154.935	154.935	other 159.345
Capitol Security	154.665	159.390	
Executive Security	155.460	155.460	
Trooper to Truck Scales		159.210	
St. Paul PD Traffic	159.210	159.210	
2500 Golden Valley	155.505	155.505	other 159.030
2600 St. Cloud	154.920	154.920	other 159.210
2700 Duluth	154.920	158.910	
Duluth Mobile Extender Link			452.975
Sandstone Talkout			457.975
2800 Brainerd	154.665	159.390	
2900 Detroit Lakes	154.680	159.090	
3100 Virginia	154.680	159.090	
3200 Thief River Falls	154.920	159.210	

State Patrol Radio System

F1 Base frequency plus mobile frequency (except Golden Valley, St. Cloud and St. Paul Districts - where the mobile frequency is an extra channel.)

F2 State Patrol units use the base frequency for car to car transmissions. (Plus any of the out of district frequencies.)

F3 171.575 Aircraft and State Patrol Statewide channel.

F4 155.475 MINSEF

ch 15 160.335 Aux. Dispatch/Information/Misc. Use/Supervisor to Trooper/Car to Car/ Aircraft

458.250 State Patrol Portables/Mobile extender

State Troopers identify with the prefix "SP" (ie. SP 104, SP 109, SP 102). Four digit numbers identify Captains (ie. 2100, 2200,2300) and Sergeants (ie. 2102, 2103, 2104).

Conservation Officers (game warden) use the prefix "K" (ie. K 104) They also have their own mobile to mobile frequency 159.300

State Patrol cars have programable radios so any frequency can be punched in (including 800 MHz Band).

IOWA

BY MICHAEL SCHEEL
410 GARFIELD ST.
DAVENPORT, IOWA 52803-1415

First a item from Barry NE-00. 154.965R(153.740m)Council Bluffs water

Davenport Police has a new alert tone that the dispatcher uses for crimes in progress. Its has two tones,sounds a little like a siren.

According to the 1990 Police Call the input frequency for Bettendorf Fire repeater is 154.400. During the first firecall after reading that I verified it.

Units believed to be Iowa DCI agents are using a new scrambling techinque. No doubt due to Lotto funding and for the fact Riverboat gambling starts next year. (frequecnies are sensitive)(MWS)

Iowa Telecommuncations Plan Part 2. {MWS}

With last month's information. You can take a cruise through Police Call for Iowa. You will have seen how things fall together. Now comes the hard reality of life. As soon, as the counties saw it. They made changes to what pertain to their counties. This normally only applied to larger populated counties. Most counties are basically the same size. Only one County is on UHF (Des Moines in the south east on 460. 350R. Story dropped from UHF when the plan was introduced. And all counties left VHF low band. While Channels one to four are as showed last month radios are usally in the 8 to 12 channel varierty.

Most small towns are dispatched by the Sheriff Department. There are some that are dispatched by largest town.

Town of ELDRIDGE

Police

1	156.210	156.210	BM Sheriff Ops
2	155.580	155.415	BM Sheriff Info
3	155.790	154.770	R State LEA
4	155.475	155.475	BM NLEECN
5	155.040	155.040	BM Cityband
6	154.220	154.220	BM Fire
7		155.070	m PD car

Fire

1 155.040 BM Cityband
2 154.220 BM rural fire
3 154.280 BM Fire/Defense

Public Works
155.040 BM Cityband
173.2625 B Power load management
173.3900 B Power load Management

Base 1 City Hall
Base 2 Police Cheif Base
Base 3 street Dept ?
Base ? City clerk,maint Bldg,Water treatment Plant, Power & Water.

North Scott School District
464.625 BM maint & admin
464.225 B Buses (469.225m)

Police are dispatched by Scott County Sheriff as 911 is answered there Officer numbers are in the 100 range. Squad car #10 is unmarked. #11 and 12 are marked. The Department consists of a Cheif ,Sgt, Corporal, 2 full time officers and 3 part time officers. The Fire department is all volunteer. EMS is by MEDIC AMBULANCE from Davenport with a unit based at the VFD Station. IDed as 'County MEDIC'. (462.950R Dispatch)

PUBLIC SAFETY—NORTH EAST

Send Public Safety and Special Emergency frequencies, radio system details, and questions as follows—New England States, New York, Pennsylvania, New Jersey, Maryland, Delaware, and District of Columbia:

Gary Saffer, 6 Roach Road, Stoughton, MA 02072

Hello, and welcome to the April edition of PSNE. Before we get to the AE reports for this month I have some Massachusetts Public Safety news and even rumors. First the Boston Police Dept. established a new district on Saturday January 20th.. A reorganization of Area E will result in three districts as opposed to the current two. With the completion of a new station at Washington and Green Streets in Jamaica Plain (in the spring of 1990), District 13 will be reestablished as a separate full service station and with the reopening Saturday Jan. 20th of the completely renovated former District 5 station on Hyde Park Ave in Cleary Square the Boston Police will add District 18 to the Area E complement. This will mark the return of a police station to Hyde Park after eight years and the return of District 18 to the Police Dept. after an absence of many, many years. Currently all officers assigned to Area E work out of the Area Headquarters station at 1708 Centre Street in West Roxbury. This station will remain as Area HQ but will also be known as District 5, District 13 will be Jamaica Plain and District 18 will be Hyde Park/Roslindale. The moves are intended to alleviate the current overcrowding at Area E and improve police presence in the various neighborhoods. The Bureau of Special Operations which is currently stationed at Cleary Square will be moving with various units being housed at different locations in the city. The Mobile Operations Patrol (Motorcycles) is moving to the old District 6 station in South Boston, and the Bomb Squad has moved to the Police Maintenance Facility at 400 Frontage Road in South Boston. The Mounted Unit and Canine Unit will remain at there respective locations. Eventually the Special Operations is to be housed in a renovated building in Roxbury, but this is probably a couple of years away. And by the way April 15, marks the 151st anniversary of the Boston Police Department as a paid, full time police agency.

I have been told that the Massachusetts Port Authority which operates among other things Logan International Airport has received the recommendations of a consultant's report on improving operation of the Logan Crash/Rescue Fire Dept.. The Dept. is separate from the Boston Fire Department unlike it's counterparts in other major cities. The consultant recommends among other things, that the fire department stop responding to structure fires, motor vehicle accidents, and other non-aircraft related incidents on airport property, contracting with the Boston Fire Department to provide such services. The recommendation is for one Ladder and one Engine to be provided by BFD. That they stop responding to medical aid calls on airport property, and either hire non-firefighter EMT's to perform this function or to contract with Boston EMS or another agency to provide EMS at the airport. Boston EMS has submitted a proposal to provide one ALS and one BLS unit to the airport, but currently the directors of MassPort feel the cost is too high. Other recommendations are that the Logan Fireboat be taken out of service and disposed of, again relying on Boston Fire to provide that service when needed, and to build another fire station on the north side of the airport and split the fire fighting force among two stations. MassPort is currently in the process of hiring 12 more firefighters. Nothing has been done about this report as of yet, according to the person who related this to me, and nothing may in fact be done due to recent changes in the Board of Directors for MassPort.

I have also received a report that the Metropolitan Police are not happy with the current operation of their 800 mhz trunked system. Poor coverage especially in buildings and the further reaches of the jurisdiction and inconsistency in the quality of coverage seem to be the major complaints. Also I have heard that the trunking system, not the frequency band is the cause of the problem. It seems that there have been numerous instances when police officers have not been able to access the system receiving a "busy signal" when they attempt to transmit. One person I talked to about this seemed to think that the whole system might be scrapped and replaced with something else. I have only heard vague details about this and considering the state of the Massachusetts economy I don't think that any changes will happen real soon, unless the state can compel Motorola to replace the system at no cost to the state, which is unlikely at best. Speaking of which can anyone verify that the City of Chicago, Illinois has scrapped their 800 mhz system and forced Motorola to replace it with a UHF system. I was told this but find it hard to believe.

Boston EMS is currently installing and testing a new Penta Corporation radio console for the control of the Metro Boston C-MED. The C-MED System which links hundreds of ambulances and dozens of hospitals through fourteen transmitter sites in the Greater Boston Area relies on a switching matrix to connect hospitals to transmitters, and the Motorola Centracom console which has provided mechanical switching has finally neared the end of it's useful life after thirteen years of service. The new console is computer operated, has CRT displays, can accommodate up to three operators, has capacity for many more transmitters and hospital remotes, can use a light pen for operation, and in general is a state of the art system. After the new console is in operation and completely "debugged" the old console will be reconfigured to operate as a back up for the EMS dispatch console and will be control for Mass Casualty Incidents.

While on the subject of Medical communications, the Governor of Massachusetts has cut the $375,000.00 line item for funding the various C-MED systems in the state. The cuts are predicted to severely curtail services provided by the several C-MED centers throughout the state. Before the cuts Massachusetts was 48th in nation for EMS funding at 12 cents per person. With the cuts the funding level drops to 6 cents a person making it probably the lowest in the country. Some of the cuts predicted are, Boston C-MED will handle only communications pertaining life threatening problems, Plymouth County C-MED will probably close as of July 1st, cuts in state sponsored training, especially in rural areas. Other service will likely be impacted in the future as hospitals prove unable or unwilling to pick up the tab. Look for less ambulance-hospital communications in the future and more paramedics operating under standing orders communicating with medical control physicians only when there is a problem or unusual situation. Overall Massachusetts will probably be a less safe place to get critically ill or injured as a result of the cuts.

The Massachusetts General Court stopped short of merging the State and Metropolitan Police as was proposed. They have formed a joint commission which will explore the best means of consolidating the two agencies and apportioning jurisdictions. The committee will report in June and then the General Court make it's decision in the form of a legislative act. This is seen as a defeat for the Troopers and a victory, of sorts, for the Mets. The Committee will be formed of representatives of the agencies involved and representatives of the Commissioner of Public Safety and the Secretary of Environmental Affairs (which oversees the MDC Police). It seems likely that a compromise will be reached which will save some money, which was the original goal, and result in some realignment of responsibilities for the two agencies. One person I talked to has speculated that this could result in more jurisdiction within the Greater Boston area for the Metropolitan Police while the State Police would gain more outside of the Greater Boston area. Also some duplicate units could be consolidated to eliminate redundancy. The Capitol and Registry of Motor Vehicles Police agencies are due to be absorbed by the State Police as originally proposed, but when is not clear. The state Environmental Resources Police will not be absorbed and will remain independent. The reason for this is that the state stands to lose a substantial amount of federal money if they do not have a separate environmental police force and the savings realized by any merger will be more than offset by the loss of funds.

Meanwhile, the union representing the Metropolitan Police Officers has filed legislation which would merge the MBTA and Capitol Police with the Metropolitan Police under the name of Metropolitan Police and give the resulting agency exclusive jurisdiction over all state highways within the perimeter of Route 128, all facilities currently patrolled by the three agencies, and all bus and trolley routes used by

the MBTA. This would significantly increase the jurisdiction of the Metropolitan Police at the expense of the State Police and several local departments. Apparently the officers of the MBTA police are less than enthusiastic about this idea as are the management and unions representing the other agencies that would be impacted by this idea. This is taking on all of the elements of a soap opera.

Connecticut

Stephen Repetto, 42 Glenstone Dr, Vernon, CT 06066

Stephen reports only one item this month. The State of Connecticut has denied Hartford Hospitals application for a second Life Star helicopter saying that there was to high a level of non-essential transfers being done and that the service should be more selective in accepting calls. After the decision was published a number of potential users came forward to state that they would have used the system but did not even call because they knew that the helicopter was busy when they needed it. There is now a move afoot to request reconsideration of the decision.

Massachusetts

Mariner S. Ayer Jr. 299 Thompson ST, Middleboro, MA 02346

First we have some frequency and tone updates for Massachusetts from Gary, the PSNE Editor.

Ashland Police	483.1125	tone 123.0	(possibly also 483.7375)
Athol Police	453.225		
Attleboro Fire Dept.	154.385		
Auburn Fire	154,385		
Barnstable Police (future)	855.2125		
Hanscom Airfield (Bedford) Fire	855.2375		
Berkeley Police	483.5875	tone 203.5	(also Dighton and Freetown)
Bourne Police	851.1625		
Braintree Police Channel 10	465.1875,		
Channel 11	465.0375,		
Channel 12	465.2625	(low power simplex)	
Bridgewater State College Campus Police	483.9375	tone 203.5	
Brockton Fire Channel 2	153.890		
Cohasset, Hingham, Hull, Scituate Fire Depts. Channel 2	154.265	tone 203.5	tone for ch 1 is also 203.5
East Bridgewater Fire	33.72	tone 203.5	
Gill Police	39.16	tone 141.3	
Groton Fire Dept.	153.860		
Hamilton Fire Dept.	155.940	tone 127.0	
Hingham Police Dept.	484.4125	tone 203.5	
Holbrook Police Dept		tone 156.7	
Hopkington Police (future)	471.6125		
Leominster Fire Dept.	460.550	tone 151.4	
Leyden Police	39.16	tone 141.3	
Lowell Fire Dept.	154.205		
Melrose Fire Dept. (future)	159.405	tone 131.8	
Middleboro Fire Dept.	33.72	tone 203.5	
Northfield Police	39.16	tone 141.3	
Petersham Police Dept.	39.16	tone 141.3	
Princeton Fire Dept.	33.88		
Springfield Area Fire Mutual Aid	154.280	tone 82.5	
Sturbridge Fire (future)	155.940		
Townsend police		tone 141.3	
Turners Falls Fire		tone 123.0	
Wenham	155.940	tone 127.3	
Yarmouth Police	855.2375		

All Mass. DPW channels use tone 141.3. All Barnstable County Fire 33.70 tone 114.8

For listeners of the Metro Police the following info on the trunked system. Phone patches are on the 859.xxxx, Data channel rotates among the 860.xxxx channels. 853.8375R Tac 14, 854.0375R is Tac 15 853.8375S is Tac 16, 854.0375S Tac 17.

It has been reported to me that Norfolk Bristol Ambulance Service of Norwood has recently purchased Commonwealth Ambulance. Commonwealth has municipal contracts in Quincy, Braintree and Springfield. Norfolk Bristol has contracts in Brockton, Dedham, Marshfield, and Taunton, among others. The acquisition will make NBA one of the largest private companies in Massachusetts. NBA is also negotiating with the Charleton Memorial Hospital in Fall River to provide a non-transporting ALS service based at the hospital. Commonwealth curretnly is operating on 852.0125 conventional, while NBA uses a commercial trunked system. Units in Quincy and Braintree are dispatched by the police departments in those cities on the police frequencies. It appears that the two companies will be merged under the Norfolk Bristol Ambulance name as the Commonwealth trucks have already started to be repainted in NBA colors. Also unknown is what will happen to the 852.0125 frequency, if anything. If any reader out there has any info please send it along and I'll include it in a future AE report.

Maryland

William Staubs, 756 221st St, Pasadena, MD 21122

Bill reports that he has no member input this month. He has received three requests, two mail and one phone from members for information. He received these requests in the fall just prior to his run in with his lawn mower, and in the subsequent confusion he misplaced the requests. The phone request was from Charles in Northern Virginia, but that is all Bill remembers. The mail requests are totally gone. So if you sent Bill a request for information and have heard nothing please contact Bill again and he will try to get the info out to you again. Montgomery County has awarded a contract to Motorola Communications and Electronics for a new Centracom Series II Plus dispatch system. The system will provide for dispatch of Police and Fire/Rescue. The police system will consist of twelve call taker positions, one call taker supervisor position, eight dispatch positions and one dispatch supervisor positions. The fire/rescue console will provide for dispatch on two VHF channels and control a third dedicated 150 mhz data channel. The police consoles will provide for operation of a dispatch channel and a county-wide channel at each position. The system will be designed to interface with Computer Aided Dispatch and Enhanced 9-1-1 systems. That's it for this month from Maryland.

New Hampshire

Position Open

Some New Hampshire Frequency and tone information. Unless otherwise indicated tone is 136.5. Concord Police 154.800R Lakes Region Fire 33.90 tone 173.8 Manchester Fire Dept. Channel 1 460.600, Channel 2 460.5125, Channel 3 460.600, Channel 4 460.5375 (tone is digital)

New Jersey

Richard D. Prail, PO Box 1274, West Caldwell, NJ 07007

From Lou (NJ-253), a few updates on the NJSP trunked system. The system now has telephone interconnect available to some personnel. The xxx.4625 channels seem to be used for overflow from the regular troop channels. Lou reports hearing a unit ID as CJ 884 talking on the Troop C frequencies (xxx.7125) and being shunted over to the .4625 frequencies because the Troop freqs. got tied up. The .4625 channels are still in occasional use by themselves and not just for overflow. There is still some differences in signal strength and readability within the .7125 and .9625 channel groups. The radio techs. are still working on evening out the performance.

The Marine Division out of Newark Bay is now on the trunked system. They are referred to as the Marine Police and can be heard on 156.850 as they recently were investigating an oil spill. Lou also heard them searching for a boat containing some missing duck hunters on 156.850. Also it appears that the new governor will be using the trunked system at the mansion in Drumthwacket replacing the 154.920 frequency.

Lou would also like to hear from anyone who has information on the Hamilton Township PD on 453.525R. They Id with 700 series ids. The officers have Digital Voice Protection in the cruisers and portables but the base always seems to transmit in the clear. Lou would like to know how long they have had DVP, who makes the radios they use and if all units have it or just some of them. If anyone has the answers write to Lou care of Richard.

New York City

Phil Caruama, 7225 73rd St, Glendale Queens, New York, NY 11385

Phil has sent in some Nassau County information.

Garden City Police/Mineola Police	153.740
Auxiliary Police Oyster Bay	154.115
East Meadow Police	158.835, 453.325, 453.875
Old West Bury/UnionDale Police	453.225
East Hills Police	453.325
Nassua County Police 1st and 7th precincts	477.2375
Nassua County Police 2nd and 8th precincts	477.3875
Highway Patrol	477.2625

New York State

Joe Nooney, P.O. Box 30, Valatie, NY 12184

From Anthony (NY-475), some New York Finger Lakes Region frequencies.

Sheriff's Departments		Police Departments	
39.02	Cayuga County	154.845	Lyons PD
39.10	Cayuga County	154.725	Wayne County Local PDs
155.550	Cayuga County	155.010	Ithica PD
154.875	Chemung County	155.550	Interlaken PD
155.415	Onondaga County	155.550	Ovid Pd
154.740	Onondaga County	155.550	Seneca PD
39.22	Schuyler County	155.550	Waterloo PD
158.790	Schuyler County	155.970	Geneva PD
155.550	Seneca County	159.790	Watkins Glen PD
155.180	Tompkins County	159.030	Webster PD
154.845	Wayne County	159.225	Liverpool PD
154.475	Wayne County	44.720	Finger Lakes Park PD
155.610R	Yates County	151.145	NYS Park Police
		151.340	NYS Park Police

Fire Departments

45.880	Interagency
46.100	Seneca County Fire
46.220	Seneca County TAC-2
46.420	Ontario County Fire
46.440	Wayne County Fire
46.500	Yates County Fire Disp.
154.130	City of Rochester

Miscellaneous

151.010	Ontario County Highway Dept.
159.105	Seneca County Highway Dept.
453.425	NYS Thruway
453.525	NYS Thruway
155.370	Statewide Police Interagency
39.46	Sheriff's Dept. Interagency
46.04	Penn Yan Ambulance Corps
155.940	Wayne County Ambulances
155.355	Canandaigua Emergency Squad
154.055	Victor-Farmington Rescue Squad

NYS Dept. of Environ. Conservation

151.220
151.250
151.265
151.280
159.225

NYS Dept. of Transportation

47.220
47.320
47.340
47.400

Jim (NY-???), also contributed to this listing.

From Ernst (WI-024), some various County Frequencies for New York State.
Chemung County Sheriff 154.875//Fire 46.18//Highway 33.02
Tioga County Sheriff 154.800//Fire 46.20//highway 159.120//Municipal Police 158.760
Steuban County Sheriff 155.310//Municipal Police 154.785//Fire 46.40//Highway 37.90
Schuyler County Sheriff 158.790//Fire 46.06

Pennsylvania

Keith Maydak, 6393, Penn Ave, Pittsburgh, PA 15206

No word from Keith this month.

Vermont

Dan Gilman, 123 Walnut St, Rutland, VT 05701

Dan reports no input from Vermont this month.

Washington DC

Position open

David (no membership #), sent me a few clippings from DC area newspapers. Among the stories were an item about the DC Firefighters and Paramedics. The station covered in the story, at 15th and C streets SE, containing Engine 8, Medic 9 and two other ambulances unidentified in the story, is reported to be the busiest fire house in the country with 22,576 runs in 1989 between the four units. The article details typical urban EMS responses ranging from life threatening emergencies to utter silliness. Reading the article proves to me that all big city systems are basically the same. The other article is more communications oriented and details the efforts of police in DC to outwit the drug dealers who are listening to them with scanners. Dealers are also using Cellular Phones, two way radios, and pagers to avoid arrest. The police are responding by using codes for locations instead of the names so that dealers will not know when or where raids will occur. The police will also be using some forms of scrambling to avoid detection.

David reports that in general it is difficult to get info regarding things like unit ID,s, 10-codes, assignment plans etc..., and he would like to hear from DC area members who have any information. Send it to me and I will pass any info along. However please do not send any confidential or sensitive material along as I will not be able to pass it along or use it. The type of info acceptable, in conformance with club policy, is the stuff you see hear each month, not the stuff that the drug dealers or other bad guys would be interested in.

Well, I hope that you enjoyed the column this month, because other than that there is nothing more to PSNE for April 1990.

Editor Needed for
PUBLIC SAFETY—WEST
Interested? Contact RCMA General Editor
William Mauldin, 961 Azalea St, Boca Raton, FL 33486

Send Public Safety and Special Emergency frequencies, radio system details and questions for Alaska, Arizona, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming to:

George N. Hoggatt, 17473 E. 16th Dr., Aurora, CO 80011

ELECTRONIC MAIL: COMPUSERVE-71077,2554; DELPHI-JORG; PRODIGY-VFHF93A

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As you probably can see, I am giving up the column. If you are interested in doing the column (it is interesting and fun and you get lots of information that you can't get anywhere else) apply. I'll try and keep it going until a new editor is found.

****

ALASKA

Dan Morisseau, 2616 Alpine Pl. SE, Auburn, WA 98002

We have a new associate editor for Alaska. Welcome Dan. Here is a note from Dan to let us know who he is:

Hello, I'd like to take this opportunity to introduce myself as the Associate Editor for the State of Alaska. I am 45 years old and employed by a company which does a considerable amount of business in that state. I have the opportunity to travel there a few time each year. While it may seem a little odd for someone from the "Lower 48" (as we are known in Alaska) to edit that state's column, it appears that there were no other volunteers. I trust that my own experience traveling to an from that state over the past 10 years will serve to get things rolling and keep them going. I also hope that the presence of this column will encourage those members in Alaska to make whatever contributions they can to the bulletin. I hope to be able to provide a wide range of Public Safety material for use in this particular portion of the bulletin. However, Alaska does have a limited population and therefore limited Public Safety agencies. I will be actively seeking and forwarding other types of frequencies to other columns as well. Perhaps this will encourage wider participation. Please address all correspondence to the address at the top of this section.

Next month I will plan on providing some details of my trip to Anchorage in early November, 1989. I have secured some information that is new (to me, at least) and will share a portion of it at that time. I will be going back up in early February and will do more scanning and searching on the trusty PRO-30 at that time. I would hope that within two or three months, my efforts will have elicited contributions in the form of additions and corrections from local members. I look forward to hearing from ANY members with contributions about the "Great Land."

****

ARIZONA

Bob Schmulian, 4415 N. Rockcliff Rd., Tucson, AZ 85715

Tucson area frequencies from the Arizona Frequency Directory (copyright 1989, used with permission):

REACT	462.675
Tucson Medical Center	463.4375
Pima Co. Sheriff paging	453.650
Tucson Unified School D	485.6, 446.2 ? [ed. note - I hope not, that is in the ham band; image maybe?]
Pima Co. Highway Maint.	159.180 (R) 158.985 (input)

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COLORADO

George N. Hoggatt, 17473 E. 16th Dr., Aurora, CO 80011

Another new, unidentified frequency - 159.255 - either simplex or input to a repeater whose output is unknown. Is a town north of Denver, probably Ft. Lupton. Never gives a call or any ID. Can anyone verify this and who it is?

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HAWAII

NOTHING THIS MONTH - ASSOCIATE EDITOR NEEDED

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IDAHO

George Wight, P.O. Box 732, Groveland, CA 95321

NOTHING THIS MONTH

****

MONTANA

NOTHING THIS MONTH – ASSOCIATE EDITOR NEEDED

****

NEVADA

Fred McGowan, P.O. Box 879, Las Vegas, NV 89101

Fred is getting discouraged; he has been doing this part of the column for quite a while now and no member input. If the club is going to live, we need YOU! From Fred's files:

Las Vegas Metro Communications System unit numbers:

9470–9480	Nevada State Parks	9554–9566	Clark County Animal Control
9481–9485	Nelson Landing Justice Court Bailiff	9567–9572	Clark Co Constable's Office
9531–9535	Las Vegas Housing Authority Police	9573–9583	Juvenile Court
9536–9541	ATF	9584–9586	USFS Law Enforcement Div
9542–9545	Dept. of Energy	9587–9591	USFS Mt. Charleston
9546–9547	Dept. of State Security Detail	9700–9800	Search and Rescue Reserve members
9548–9553	BLM		

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NEW MEXICO

NOTHING THIS MONTH – ASSOCIATE EDITOR NEEDED

****

OREGON

Al Musgrove III, P.O. Box 341, Medford OR 97501

Al has nothing this month; as with so much of the rest of the column, the response from YOU has been underwhelming to say the least. In addition, Al has been sick and has not had time to do any research. Note the new address.

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UTAH

John Parken, 4672 S. Deer Creek Rd., Salt Lake City, UT 84124

NOTHING THIS MONTH

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WASHINGTON

Kenneth E. MacLeod, P.O. Box 2495, Friday Harbor, WA 98250

GRAYS HARBOR COUNTY *(Darrell WA–080)*

151.460	WSP	154.385	County Fire
154.755	WSP	154.175	Ocean Shores/No. Beach/Comm. Hosp/St. Joe Amb
154.770	WSP Grays Harbor mobile		
155.370	WSP LEARN	154.145	Hoquiam Fire
155.475	NLEEC	155.160	SAR state
155.970	WSP Fish and Game	155.175	Elma School Dist
158.790	WSP Fish and Game	155.340	Hospital HEAR system
159.075	WSP traffic	155.280	Comm Hosp. Emergency
154.695	WSP Hoquiam base	155.400	Aberdeen
155.730	Hoquiam/Aberdeen Police	158.955	Ocean Shores/Taholah/Amanda Park local government
155.790	Elma/Montesano Police		
154.785	Cosmopolis Police	158.940	Aberdeen/Hoquiam local gov
159.150	Cosmopolis/Taholah Police	155.085	Montosano/Elma local govt
155.595	Taholah Police	154.995	Elma local government
155.430	Aberdeen/Hoquiam Police	153.980	Aberdeen – Port of Grays Harbor
154.100	McCleary PD and city govt		
155.610	Sheriff	453.400	County transit
155.910	Sheriff	458.400	County transit
155.850	Sheriff	153.860	Westport
158.910	Sheriff	158.805	McCleary local government
155.010	Westport Police	48.260	County PUD
154.235	Westport Fire	158.415 ?	
460.637	Aberdeen Fire	155.100 ?	
154.190	County Fire		

KING COUNTY (Darrell WA–080)

460.200	Sheriff aux dispatch car to car	453.450	Bellevue Police F–1
460.225	Sheriff patrol dispatch (sky area)	453.725	Bellevue Police F–2
460.275	Sheriff wants and warrants	453.050	Bellevue Police F–4
155.250	Algona Police	453.975	Bellevue Police F–3
155.250	Auburn Police	453.975	Bothel Police
155.535	Auburn Police	155.010	Buckley Police
155.685	Auburn Police	453.325	Mercer Is. Police

154.875 Enumclaw Police
154.785 Issaquah Police
154.860 Kent Police

More from Darrell:

151.055 Skagit County Roads
156.060 Skagit County Roads
151.100 Snohomish County Roads
155.940 Anacortes Water Treatment Plant
853.9875 Island County Transit
453.250 Clallam County Transit
155.505 Washington State Police – Mt. Vernon
154.845 Washington State Police – Everett
154.755 Washington State Police – Bellinghan
154.890 Clark County Sheriff control 1
155.655 Clark County Sheriff control 2
154.800 Clark County Sheriff
155.310 Clark Co Sheriff small towns
155.070 Clark County Sheriff car to car
460.400 Vancouver Police dispatch
460.175 Vancouver Police car to car
159.030 Vancouver Police
156.090 Vancouver Police
154.040 Battleground
155.010 Washouoal
154.070 Clark Co fire dispatch control 7
154.370 Clark Co fire operations control 8
154.310 Vancouver Fire dispatch control 9
153.950 Vancouver Fire dispatch control 10
453.650 Kirkland Police F–1
453.350 Kirkland Police F–2
158.850 Monroe Police
465.5625 Clark County fire
154.385 Yacolt Fire
154.430 Yacolt Fire
153.920 Camas local government
155.040 Battleground local government
155.940 Washouoal local government
453.300 Yacolt local government
155.265 Yacolt
155.280 American Ambulance
155.265 A A Ambulance
453.1625 Vancouver Port
453.625 Vancouver Port
458.0875 Vancouver Port
458.1125 Vancouver Port
458.1375 Vancouver Port
458.2875 Vancouver Port
155.895 Clark County/Camas – Battleground
159.120 Clark County roads
47.100 Clark County roads – DOT
453.050 Clark County/Vancouver
458.050 Clark County/Vancouver
453.5125 Clark County/Vancouver
155.115 Clark County/Vancouver
158.865 Clark County/Vancouver
155.040 Larch Camp Correctional Center

SEATTLE/KING COUNTY ***(Mike WA–106)***

155.970 Washington State Patrol also used by KIRO helicopter
460.0625 Seattle Police offset frequency
460.4375 Seattle Police offset frequency
453.950 King County Jail
453.850 Seattle Police security for Governor or Mayor. The rest of the time used by city engineers and building inspectors
453.900 Woodland Park Zoo
158.805 Seattle city channel for security
453.375 Metro Transit System
453.525 Metro Transit System
155.700 Monroe Reformatory; Clearwater Correctional Institute; Purdy Correctional Facility for women; Shelton Prison
156.500 Seattle Police Harbor Patrol
154.340 Boeing Fire Dept.
155.265 Snoqualmie Pass Ski Patrol

****

WYOMING

Christopher D. Smith, P.O. Box 12457, Ogden, UT 84412

Note the new address for Chris.

TORRINGTON (GOSHEN COUNTY) ***(Kent WY–005)***

154.145 Torrington Fire
156.000 Ft. Laramie Fire paging
154.205 Ft. Laramie Fire
154.040 Yoder Fire
154.235 Lingle Fire
154.430 Hawksprings Rescue (R) input
156.180 Goshen County – highways
151.430 Wyoming – forestry conservation
154.800 Torrington, City of – police
154.800 Goshen County – police
154.875 Torrington, City of – police
154.875 Goshen County – police
153.770
154.130 Veteran Fire

Microfiche from Chris (still Goshen County):

154.980 Goshen County – local government
153.815 Lingle, Town of – local government
153.935 Lingle, Town of – local government
154.995 Platte County – local government
155.355 Torrington Community Hospital
155.535 Torrington, City of – police
155.760 Torrington, City of – local government
453.625 Wyoming – local government
458.625 Wyoming – local government
462.275 Torrington Community Hospital

SUBLETTE COUNTY (microfiche listings from Chris)

46.060 Pinedale, City of – fire
154.800 Pinedale, City of – police
154.875 Sublette County – police
154.980 Sublette County – local government
155.250 Sublette County – police
159.000 Sublette County – highways
154.025 Sublette County – local government
155.940 Sublette County – local government
42.820 Wyoming – police – Daniel
154.875 Wyoming – police – Daniel

155.730 Sublette County – police
155.805 Pinedale, Town of – local government
155.865 Sublette County – local government
156.180 Sublette County – highways
155.445 Wyoming – police – Daniel
155.640 Wyoming – police – Daniel
156.105 Wyoming – highways – Daniel

**********END PUBLIC SAFETY WEST**********

PUBLIC SAFETY—CALIFORNIA

Editor: Dan Figueroa, CA-LA-359,
P. O. Box 2895, La Puente, CA 91746

Welcome one and all to the April installment of PS-CA. Our sincere thanks to Gary for the super job of handling the control links last month.

Before we begin, we would like to thank Loyd Reedy, Gene Hughes, and Robert Kelty. Loyd Reedy is editor of a new publication called "THE CALIFORNIA FIRE BUFFS HANDBOOK" which he was kind enough to forward to us for our review. Volume I covers CDF and OES and includes everything dealing with these 2 agencies. We understand that Loyd is currently working other California fire service handbooks for future release, to compliment this volume. Gene Hughes is the editor of "POLICE CALL" and has forwarded a copy of the 1990 issue of the Southern California Detail Edition. As usual, Gene and his staff have done an excellent job in the preparation of this, the 27th edition. This edition also includes the proposed 800 MHz freq blocks for San Bernardino County. And finally, Robert Kelty is the editor of "GOVERNMENT RADIO SYSTEMS" and has also forwarded a copy of the 6th Edition. This publication is really extensive in its coverage of California cities, counties and state agencies, and lives up to its favourable comments by Gary and others who have a copy. Keep up the good work, gentlemen!

Now let's put all frequencies on stand-by (if we can remember how to operate the control links), and switch to the Data Channel South:

From STEVE [CASB-066] and ED [CARI-013]: Ontario PD has acquired 2 helicopters to take to the skies over the city. 2 McDonnell Douglas MD500E's are now part of the newly created Air Support Unit, thanks in part to drug monies seized by the PD's Narcotics unit. The MD500E's have greater a load-carrying capacity, a quieter tail rotor system, a 30-million candlepower searchlight and an infrared device, for suspect searches without using the searchlight. Ontario becomes the first city in San Bernardino County with its own helicopters. The Sheriff is the only other agency with helicopter patrols. As of press date, there will be limited patrol hours, with expansion to 3 crews expected by June. (We have heard that ID's may be known as ONT 1 and ONT 3. During an apporach to ONT airport, we heard "PD 1" acknowledging landing instruction from the tower). Ontario PD can be heard on 155.040 MHz.

As of the end of January, testing is being conducted on the new MDT system for LASD. Using several "C-Tact" freqs for voice confirmation, 2 of the 8 dedicated data 470 MHz freqs are now being used. So far, Lakewood and Altadena stations are currently the only ones involved in the testing phase. More info on the type of system to be developed, in a future column. We show the data channels to be as follows (But don't try sleeping with these freqs programmed in!):

470.9375 MHz	Countywide	470.8375 MHz	East Area 2
470.6875 MHz	West Area 1	470.8875 MHz	South Area 1
470.7375 MHz	West Area 2	470.7625 MHz	South Area 2
470.8625 MHz	East Area 1	470.8125 MHz	North Area

From NEAL [CALA-385]: He has passed 2 freqs used by the CA State Department of Agriculture for the Southern California Medfly spraying program: 37.260 MHz and 39.500 MHz (credit to "POLICE CALL" Volume 9, 1989). (We also show Medfly commo by the LA County Agriculture Commissioner on 453.575 MHz).

From ROB [CAOR-194]: He has listed several of the agencies heard during this past New Year's Rose Parade activities:

463.475	Floatmasters/Convoys	42.500	CHP
463.750	Other operations	46.100	Pasadena FD
168.100	Extra Red Cross (?)	153.890	Pasadena FD
151.625	Extra	46.000	Medevac/Prof. Amb.
482.3375	Pasadena PD	482.8125	LASD (C-Tac 1)
482.4375	Pasadena PD	483.0625	LASD (C-Tac 3)
482.5375	Pasadena PD	47.420	Red Cross
482.6375	Pasadena PD	47.500	Red Cross
122.750	Police helicopters	150.920	AAA
123.025	Police helicopters	150.950	AAA
132.000	Goodyear Blimp	450.950	KTTV Channel 11
154.650	Pasadena City College		

From ED [CALA-277]: Ed also has submitted what he has heard during the Rose Parade:

482.4375	Pasadena PD (F-2)	482.5375	Pasadena PD (F-3)
482.8125	LASD (Utility)	453.950	Pasadena Public Works
483.7875	LASD ("Gold")	153.890	Verdugo Fire
483.8375	LASD ("Brown")	42.340	CHP Blue Channel
483.6375	LASD ("Red")	151.625	Vendor (Post Parade)
484.1375	LASD ("Green")	157.470	SN Ward Towing
484.0625	LASD ("Blue")	483.575	Sharp City Parking Comp

Let's switch to the Inquiry Channel: From NEAL [CALA-385]: Now that LASD has switch to the 480 MHz system, what has happened to the Marina Del Rey Harbor Patrol operations? (They were on 470.7625 MHz). Has anyone heard them on any of the 480 MHz freqs? And on Page 79 of the 1990 "POLICE CALL DETAIL EDITION", what is 484.2125 MHz "small cities PD" and 484.2375M MHz "small cities fireground"?

Before we bring up the Data Channel North link, we would like to extend our apologizes to ROD [CAMR-006]. Due to column space limitations, a portion of his "Travelling List" did not appear in the January PS-CA. At this time we would like present this now. This one is for the drive from Santa Clara to the Monterey area via HWY 17:

156.210	Santa Clara SO	156.030	Santa Cruz SO (Orange)
155.700	Santa Clara SO	155.070	Santa Cruz SO (Green)
42.500	San Jose CHP	155.010	Santa Cruz SO (Extenders)
42.820	San Jose CHP (mobiles)	155.940	Scotts Valley PD
482.4625	Campbel PD	155.085	Scotts Valley PD (CH-2)
482.9125	Los Gatos PD	154.325	Scotts Valley Fire
42.540	Santa Cruz CHP	154.770	Santa Cruz PD
42.240	Santa Cruz CHP (mobiles)	155.625	Capitola PD
155.565	Santa Cruz Co (Blue)	153.995	Capitola PD (CH-2)
154.920	CLEMARS (White)	154.845	Watsonville PD
154.950	Santa Cruz SO (Red)	154.445	Watsonville Fire
42.460	Monterey Co CHP	154.920	Mutual Aid (CLEMARS)
42.700	Monterey Co CHP (mobiles)	156.075	Countywide (CALCORD)
159.090	Monterey SO (155.730 in)	154.370	Monterey Co FD (Red/Yel)
158.910	Monterey SO (2nd)	154.175	Monterey Co FD (Gold)
155.970	Monterey SO & SWAT	158.835	Marina PD
158.805	Police South Co Depts	154.235	Marina Fire
460.175	Salinas PD	154.205	Seaside Fire
460.025	Salinas PD (CH-2)	153.860	Del Ray Oaks TAC channel

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PUBLIC SAFETY - CALIFORNIA continued

460.375	Salinas PD TAC	154.710	Carmel PD
155.535	Monterey/Pacific Grove PD	173.4125	Fort Ord Police
155.490	Monterey/Pacific Grove PD	173.4625	Fort Ord Police
153.890	Monterey Fire	152.300	Pebble Beach Security
154.370	Pacific Grove Fire	151.250	CDF Pebble Beach/Big Sur
155.685	Seaside PD		

Now, let's switch to Gary and Data Channel North: DATELINE REDDING: Dan reports that Redding Fire Department has been licensed for four new tactical channels. They are simplex only with no repeater inputs. These are intended primarily for car-to-car and fireground service.

154.205 Tac 1 154.235 Tac 2 154.250 Tac 3 154.355 Tac 4

Robert Kelty has forwarded a page from his book, "GOVERNMENT RADIO SYSTEMS", the 6th Edition. We re-print this with his permission.

AMADOR COUNTY SHERIFFS DEPARTMENT		F	Input	Output	Tone
Amador	Operations primary	1	45.900	45.600	192.8
	Police common	2		45.540	192.8
	Operations direct	3		45.600	192.8
	Police secondary	4		45.740	192.8
	Mobile extenders			155.595	none

SHERIFF UNIT NUMBERING

Adam	Adminstration
Charles	Civil Division
David	Detective Division
Edward	Undetermined
Paul	Patrol Division
Sam	Sergeants
Tom	Transportation
X-ray	Extra units

AMADOR COUNTY FIRE DEPARTMENTS

	Amador CFD - CDF dispatch	159.225	151.190	none
	Fire local planned		154.	
	Fire Mutual Aid		154.280	none

FIRE DEPARTMENT NUMBERING

6100	Jackson Valley FPD	Ione
6150	Lockwood FPD	Volcano
6200	Ione FD	Ione
6250	Willow Creek FD	Ione
6300	Jackson FD	Jackson
6400	Sutter Creek FPD	Sutter Creek
6450	Amador City FPD	Amador City
6500	River Pines VFD	River Pines
6550	Drytown VFD	Drytown
6600	Pine Grove CSD	Pine Grove
6650	Plymouth FD	Plymouth
6700	Pine Acres VFD	Pine Grove
6750	Fiddletown VFD	Fiddletown
6800	Defender VFD	Pioneer
6900	Silver Lake Pines FD	Pioneer
	Preston School FD	Ione
	Mule Creek Prison FD	Ione

MEDICAL EMERGENCY SYSTEMS CA Health Service Area 6
Alpine Mother Lode San Joaquin EMS Agency

Pine Grove	Med 2 Mount Zion	468.025	463.025	100.0
	Med 8 Mount Aukum	468.175	463.175	100.0
	Med 10 Mount Zion dispatch	467.975	462.975	100.0

HOSPITALS & TRAUMA CENTERS
Jackson — Amador Hospital

AMBULANCE-MEDICS
Jackson — Amador Hospital ambulance

EL DORADO COUNTY FIRE DEPARTMENTS		F	Input	Output	Tone
Central/Camino	County Fire primary	1	46.080	46.420	123.0
	Union Hill	TA	131.8		
	Pine Hill	TB	123.0		
	Logtown	TC			
	Sacramento	TD			
	Rancho	TE			
	County Fire direct	2		46.420	123.0
	Fireground	3		46.220	123.0
	Fireground	4		46.140	123.0
Camino	Pioneer & Rescue primary	1	46.060	46.340	123.0
	Pine Hill	TA	123.0		
	Willow	TB	203.5		
	Pioneer & Rescue direct	2		46.340	123.0
Fire VHF	Fire Mutual Aid white 1	A		154.280	none
	Fire Mutual Aid white 2	B		154.265	none
	Fire Mutual Aid white 3	C		154.295	none
	Fireground	D		153.830	none
	Fire Lake Valley	E		154.340	100.0
	Fire South Lake Tahoe	F	154.445	153.950	100.0
	Fire South Lake Tahoe direct	G		153.950	

FIRE DISTRICT & DEPARTMENT NUMBERING

100	Unassigned				
200	Squaw Valley FD	Placer County			
300	Northstar FD	Placer County			
400	North Tahoe FPD	Placer County			
500	Tahoe City Fire	Placer County			
600	Meeks Bay FPD & Medics	Tahoma	1	46.080	94.8
	Meeks Bay FPD Secondary		2	46.420	94.8
	Mobile extenders			150.790	none
700	Alpine Meadows FPD	Placer County			
800	Donner Summit VFD	Nevada County			
900	Truckee FPD	Nevada County			
7100	Georgetown VFD	Georgetown			

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PUBLIC SAFETY - CALIFORNIA continued

7200	Northside FPD	Cool			
7300	Garden Valley VFD	Garden Valley	46.080	46.420	123.0
7400	Coloma-Lotus VFD	Lotus			
7500	Mosquito FPD	Placerville	46.080	46.420	123.0
7600	American River Canyon FPD	Kyburz			
7700	Pollock Pines-Camino FPD	Camino			
7800	Placerville FPD	Placerville			
8200	Shingle Springs FPD	Shingle Springs			
8300	Rescue VFD	Rescue	46.080	46.420	123.0
8400	Cameron Park CSD	Shingle Springs	46.080	46.420	123.0
	Mobile extenders		465.5125		
	Mobile extenders		465.5375		
	Mobile extenders		465.5625		
8500	El Dorado Hills FD	El Dorado Hills			
8600	Pioneer VFD	Somerset	46.060	46.340	123.0
8700	Pleasant Valley FPD	Placerville			
9100	Latrobe FPD	Latrobe			
	Diamond Sprgs-El Dorado FPD	Placerville			
	Lake Valley FPD	Tahoe Paradise		154.340	100.0
	South Lake Tahoe FD	So. Lake Tahoe	154.445	153.950	100.0

The low band frequencies used by Amador and El Dorado Counties are easily heard throughout most of the Sacramento Valley. As fire season approaches, these agencies are worthy of some channels on your favorite scanner. I have found that a whip CB antenna works reasonably well for low band reception. Sometimes too well!

I have recently had several inquiries concerning California law as it relates to monitoring. I have sent lengthy documentation to our Editor for Monitoring and the Law. But a quick summary may be helpful.

CA Penal Code Section 636.5 covers monitoring public safety radio traffic. Please note that public safety monitoring is illegal ONLY if the listener conveys that information to a person that he KNOWS is engaged in criminal activities. Penal Code Section Section 632

prohibits the interception of "confidential conversations." This law is clearly intended for telephone conversations. Radio traffic is specifically excepted. Penal Code Section 632.5 mirrors federal law [EDITOR'S NOTE: The Electronic Communications Privacy Act of 1986] and prohibits the monitoring of cellular telephone (radio) transmissions. Of special note is the comment attached to that statute: "It is not the intent of the Legislature to prohibit the manufacture, sale, possession, or use of electronic scanning devices or radios capable of intercepting or receiving radio frequencies other than cellular radio frequencies, nor to prohibit the interception of radio frequencies other than the unauthorized malicious interception or reception of cellular frequencies." The source is "WEST'S ANNOTATED CALIFORNIA CODES." To answer the specific inquiry, I cannot find any law that prohibits the monitoring or taping of public safety transmissions or the subsequent exchanging of tapes.

To summarize, it is unlawful to monitor cellular (or regular) telephone conversations. It is not unlawful to monitor police, EMS, and fire radio traffic unless you divulge that information to a person that you know is going to use it for criminal means. It would therefore be perfectly legal for me to tape such police (or fire, etc.) radio traffic and give it to you if you stated that you would not be using it for criminal activity. Furthermore, the last time I checked, the special scanner police were too busy chasing down the many rumors of UFO's. As Californians, we can scan and tape and exchange tapes to our hearts content.

That wraps it up for this month. Until the merry, merry month of May, we will now clear all frequencies for routine traffic...

RAILROADS

Gary L. Sturm and Bill Farmer, Editors

Send information about railroad frequencies and their uses, radio system details, and related questions to:

Bill Farmer, P.O. Box 1838, Thousand Oaks, CA 91358-0838

We have a number of short news items this month, thanks to our faithful contributors.

George (NM-017) wrote to tell us he now hears Santa Fe's new road channel #5 in use on the New Mexico Division. "I received my Newsletter yesterday afternoon and thoroughly enjoyed the Railroad section—I always read it first. I located the Glorieta Subdivision dispatcher here in Albuquerque on 160.590. He works trains from Albuquerque to Lamy, all single track except about 10 miles to Hahn so when he has an Amtrak and several freights—coal trains, Q trains, etc., he has to set up several meets at Bernalillo, Waldo, etc. I can't hear anything north of Lamy, and the trains are very erratic, even the Amtraks sitting at the depot fade in and out. The DS is loud and clear. Just wanted to verify the Glorieta Sub. DS from here to Lamy on 160.590. If you have other frequencies I should hear on the New Mexico Div. I would appreciate it. [From Albuquerque you might hear 160.560, in use between Belen and Ft. Sumner, and 161.190, in use between Belen and El Paso. -ed.]

Bob (nonmember) wrote us that Southern Pacific has installed a new PBX (mobile telephone) site on Mt. Emma, near Palmdale, CA. The output frequency is 160.395 and the input is on 161.235. This is the first use of this frequency pair for PBX by SP and we don't know yet if it will be used at other locations.

Railpace magazine reports that Buffalo & Pittsburgh frequencies include 160.230 (road), 160.530 (yard), 160.785 (MofW), and 161.160 (transportation).

Flimsies, a Southern California-based railfan newsletter, reports that Napa Valley Wine Train has installed a repeater with output on 160.575. The input wasn't reported but it may be their old frequency of 160.695. The same newsletter says that the Los Angeles-Long Beach light rail line has begun using its 160.935 road channel. The light

rail vehicles are being tested on a completed portion of the line, and service is scheduled to begin July 16 of this year.

Ed (CA-AL-001) made a trip to Canada: "Took the 2nd last eastbound 'Canadian', VIA #2 of 1/13, to Toronto. Used the CP frequency list you published in 1988. While I wasn't awake all the time, I did have the scanner on in my roomette while I was sleeping. It seemed like everywhere we went we were hearing the local traffic as advertised. Thanks for that piece of work. The new CN timetables are out. I was able to get the Mountain Region edition [#11, effective 1/15/90 -ed.], and enclose the radio information from same. CN's dispatchers are now being called 'Rail Traffic Controllers'; their office is, naturally, a 'Rail Traffic Control Centre'. CN Ch. 1 is the primary train and MofW channel where no other channel is listed, I think." [Thanks much for the copies of the timetable radio pages, Ed, they are a big help in keeping up to date on what channels are being used where. -ed.]

Tom (GA-036) writes from Alabama: "As soon as Norfolk Southern settles down their frequency juggling in (at least) the Brimingham area, I will try to shoot you a list. The A.R.N. (also 160.275 in Birmingham) appears to be wide range. I will try to shake some info. loose on it, also. By the way, 'A.R.N.' means Automatic Radio Network, and has dial in/dial out functions, as well as operating as a conventional repeater. The signal maintainers, track supervisors, etc. use the repeater function to talk among themselves when out of range for direct communications. There are more and more track permits (NS Form 23-A) given and taken over the A.R.N. these days. It is a very nice system and quite entertaining! The Amtrak 457.900 usage in Atlanta was never more than (3) 1-watt W.T.'s used between the ticket office, manager, and baggageman. It was never used much and may still be there. Please let me know where I might order the RR frequency book that either you or Gary Sturm or both put out." [It's the Compendium of American Railroad Radio Frequencies, published by Gary L. Sturm and Mark Landgraf, available for $9.00 postpaid from Mark, 3 Coralberry Circle, Albany, NY 12203. -ed.]

Carl (NY-117) sent another of the bimonthly passenger newsletters put out by Metro-North Commuter Railroad. Thanks for keeping us up to date on M-N, Carl.

John (IL-012) sent a Chicago Tribune clipping informing us that the Chicago, South Shore & South Bend Railroad was sold effective January 1. The freight operations were taken over by a group of investors who are operating the line under the similar name of Chicago SouthShore & South Bend Railroad. The new owners in turn sold the line's commuter service to Northern Indiana Commuter Transportation District for $3.9 million. Former owner Venango River Corp. got into financial trouble when it bought the Chicago, Missouri & Western Railroad and that line later went into bankruptcy.

Speaking of CM&W, Gary (IL-073) sent a clipping from the Springfield (IL) State Journal-Register informing us that the new owner of CM&W's east-west line between Kansas City and East St. Louis is Gateway Western Railway Co., which took over January 10. Santa Fe has agreed to route a guaranteed volume of traffic over the line. Gateway Western also acquired the CM&W line between East St. Louis and Jacksonville, IL., and a branch between Roodhouse and Springfield, IL.

Dave Marshall (OH-146), writes: "Sometime this summer, I expect to have the opportunity to do some railfanning west of the Mississippi. I am wondering if you, or any of your column readers can supply me with train symbol listings for Burlington Northern, Chicago & North Western, Soo Line, Iowa Interstate, Wisconsin Central, or any of the other western railroads. I will offer lists for Conrail, CSX, and Norfolk Southern in exchange if anyone wants them. You may publish my address in your column to handle this request [50 Villa Road, Springfield, OH 45503]. For your column, the Indiana and Ohio has recently installed a repeater on its Columbus-Logan (OH) line at Carroll, Ohio. The output is 161.295. I have not yet confirmed the input. Also, the Ohio Central is using 160.845. The OC operates between Zanesville and Brewster, Ohio on an ex-Wheeling & Lake Erie line. I have also heard reports that CSX is going to convert all of their radio systems to the frequencies formerly used by the Louisville & Nashville: 161.370 road and dispatcher to train, and 161.520 train to dispatcher. As I recall, that was not the easiest system to

monitor. Thanks for your help. A large SASE with extra postage is enclosed if you can send me any symbol listings. [The best symbol listings we've seen have been published in CTC Board magazine. We'll see what we can dig up to send Dave and hope some of our readers will do the same. -ed.]

Scott (OR-099) visited a Radio Shack in La Grande, Oregon to find out the railroad channels for that area:

160.740	UPRR Dispatch No. 1
160.515	UPRR Dispatch No. 2
160.290	UPRR Mobile Telephone
160.680	UPRR Yard
160.605	UPRR Maintenance of Way
160.410	Missouri Pacific
161.100	Burlington Northern

Mike (MO-002) forwarded some listings that were sent by Zel (MO-048) to his public safety column. Some of the listings had no railroad and/or location given:

160.245	PBX T58-Police
160.260	Dispatcher MKT/BN??
160.305	Iowa Interstate—Newton, IA
160.335	Santa Fe PBX—La Plata, MO
160.425	PBX—La Plata, MO
160.440	NS Road—Moberly, MO
160.650	Santa Fe Road—La Plata, MO
160.665	BN PBX—Ottumwa, IA
160.770	Milwaukee Road—Ottumwa, IA
160.890	C&NW Road—Des Moines, IA
161.010	Ethel/McCarty, MO
161.100	BN Road Macon & Brookfield
161.115	Trans Tones
161.130	PBX Monroe City/Annabelle
161.160	BN
161.220	IA
161.280	Chicago Mo. & Western

And lastly, Amtrak is installing radios in its cafe cars and stations on the Los Angeles-San Diego line so its employees can have direct communications without using the busy Santa Fe road channel. We don't have the frequency yet, but by next month we'll nail it with a frequency counter and let you know the result. So long until then.

—Gary & Bill

Space Communications

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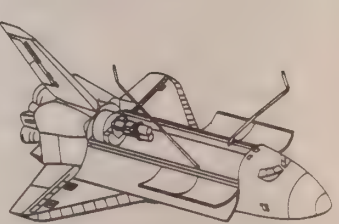
Shuttle schedule provided by Bill Mauldin.

Shuttle Schedule

Flight	Orbiter	Mission Objectives	Launch Date *
STS-32:	OV-102	LDEF retrieval, SYNCOM IV-5	12/20/89 (1)
STS-36:	OV-104	DOD	2/01/90
STS-31:	OV-103	Hubble Space Telescope	3/26/90
STS-35:	OV-102	ASTRO-1, BBXRT (X-ray telescope)	4/26/90
STS-37:	OV-104	Gamma Ray Observatory	6/04/90
STS-38:	OV-104	DOD	7/09/90
STS-40:	OV-102	SLS-1 (Space Life Sciences)	8/16/90



SPACE COMMUNICATIONS continued

STS–41:	OV–104	Ulysses (New GPC's)	10/05/90
STS–39:	OV–103	CIRRIS/IBSS/Teal Ruby (DOD)	10/26/90
STS–42:	OV–102	IML–01	11/01/90
STS–43:	OV–104	TDRS–E	1/31/91
STS–44:	OV–103	DOD	3/04/91
STS–45:	OV–102	ATLAS–01	3/28/91
STS–48:	OV–104	Starlab (DOD)	4/03/91
STS–46:	OV–103	TSS/Eureca (Tethered Satellite)	5/16/91
STS–47:	OV–102	SL–J (Spacelab)	6/17/91
STS–49	OV–104	Lageos II, Geostar	9/30/91
STS–50	OV–104	UARS	11/27/91
STS–51	OV–103	Spacehab–01, Eureca–1R	1/16/92
STS–52	OV–105	SL–D2	2/06/92
STS–53	OV–102	USML–01	3/05/92
STS–54	OV–104	Astro–02,BBXRT–02	4/06/92
STS–55	OV–105	PUR–01,USMP–01	5/18/92
STS–56	OV–102	SRL–01	6/15/92
STS–57	OV–104	Atlas–02	7/09/92
STS–58	OV–103	Flight Opportunity	8/06/92
STS–59	OV–105	Spacehab–02, SPAS, Geostar–2	8/27/92

OV–102 = Columbia
OV–103 = Discovery
OV–104 = Atlantis
OV–105 = Endeavour

SPORTS COMMUNICATIONS

Send frequencies and other information relating to monitoring sports events to:

Lynn Burke (VA-114), 285 Westwind Drive, Newport News, VA 23602-4447

Take me out to the ball game . . .

Ah, I could wax poetically over the boys of spring and the start of baseball season. But since you folks want to keep your lunches down, how about a compendium of frequencies for various major league teams and the stadiums they play in this month?

Just as we were preparing this column, a postcard from Bill Mauldin arrived that said last month's column of auto racing frequencies didn't make it to California. So we'll take an extra day and combine our baseball and auto racing lists.

All of this information is previously published, except for some auto racing frequencies from Herb (KS–030). Apologies to him for not using this earlier.

That brings up a point. If you've contributed something within the last six months and haven't seen it appear, please sent it along again. I try to put the information into the computer as soon as I get it. But I went through some problems with the unit a month or so ago and had to reconstruct a lot of data. Some, I suspect, hasn't resurfaced.

BASEBALL

American League

BALTIMORE ORIOLES	– 464.6375
BOSTON RED SOX	– 464.075, 463.325
CALIFORNIA ANGELS	– 461.925 ushers, 453.950 parking, 153.020 merchandise concessions, 151.625 food concessions
CHICAGO WHITE SOX	– 151.625, 151.835
CLEVELAND INDIANS	– 154.515
KANSAS CITY ROYALS	– 467.825?
MILWAUKEE BREWERS	– 151.625 ushers, 151.805 unconfirmed, applications for licenses on 469.500 and 469.550
MINNESOTA TWINS	– 155.025
NEW YORK YANKEES	– 151.625
OAKLAND ATHLETICS	– 464.375 security, 464.475 food service and logistics
SEATTLE MARINERS	– 462.550, 462.600
TEXAS RANGERS	– 464.5375 security, 463.7125 Parking, 464.5625 miscellaneous – 464.875 unheard, some vendors use CB channel 14

I have no listings for the Detroit Tigers or Toronto Blue Jays in any of my reference material.

National League

ATLANTA BRAVES	– 464.325
CHICAGO CUBS	– 464.5875 crowd control, 151.625 ushers, 464.525 food service.
HOUSTON ASTROS	– 463.300?
LOS ANGELES DODGERS	– 151.625 coach in press box, 151.745, 151.715, 154.570

NEW YORK METS – 151.625, 151.835
PITTSBURGH PIRATES – 151.625, 467.850, 467.925, 467.750, 467.7625
PHILADELPHIA PHILLIES – 154.570 team security and usherettes, 464.950 private security
SAN FRANCISCO GIANTS – 151.805
ST. LOUIS CARDINALS – 464.675

No listings here for the Cincinnati Reds, Montreal Expos or San Diego Padres.

Others

Only one here is the Richmond Braves of the International League on 469.550.

AUTO RACING

This is only a listing of frequencies used by the various racetracks and by major sanctioning bodies. Because of the myriad of changes among NASCAR drivers and since the season doesn't start until a week or so after I write this, I'm omitting any driver frequencies.

Tracks

St	Freq	Track (location)	St	Freq	Track (location)
AL	464.775	Talladega Int'l	CA	154.570	Long Beach G.Prix
CA	154.600	Long Beach G.Prix	CT	154.540	Stafford Sprs Spdway
DE	151.865	Dover Downs	DE	151.895	Dover Downs
FL	154.515	Daytona International	FL	154.540	Daytona International
FL	464.775	Daytona International	FL	464.900	Daytona International
GA	154.600	Atlanta International	GA	468.850	Atlanta International
IL	154.570	Santa Fe Speedway	KS	464.500	Lakeside Speedway
KS	464.550	Lakeside Speedway	IL	157.325	Santa Fe Speedway
MA	464.500	Seekonk Speedway	MA	464.550	Seekonk Speedway
ME	151.625	Oxford Speedway	MO	467.925	I–70 Speedway
MO	467.825	I–70 Speedway	NY	464.550	Crismal Raceway
NY	151.625	Oswego Speedway	NY	151.625	D.I.R.T. Syracuse
NC	462.550	Charlotte Motor Speedway	NC	462.650	Charlotte Motor Spdway
PA	151.625	Pocono International	PA	464.4125	Pocono Int'l security
SC	154.515	Darlington Raceway	SC	464.550	Darlington Raceway
SC	464.775	Darlington Raceway	TN	154.890	Bristol Dragway
TN	464.3375	Kingsport Raceway	TN	155.940	Bristol Dragway
TN	468.850	Bristol Int'l Raceway	VA	154.540	Martinsville Speedway
VA	154.570	Langley Speedway	WI	464.375	Road America(Elk.Lake)
WI	464.750	Road America (Elk. Lake)	WI	151.805	Impace Speedway
WI	151.835	Impact Speedway	WI	151.625	Badger Midget Racing
WI	464.300	CRC Speedway	WI	154.570	Great Lakes Dragway

Indianapolis Motor Speedway

151.685	Unknown use	151.775	Unknown use	154.600	unknown use
155.265	Infield hospital	452.575	Pace car	452.600	radar
154.710	Police				

Pennsylvania International – Nazareth, Pa.

461.0125	operations	464.825	executives	464.500	safety
464.550	pace car, judges	464.625	pits, F1	464.750	pits, F2

State Fair Park Track – Wisconsin

464.525	F1 – fire/safety	464.975	F2 – operations

Championship Auto Racing Teams (CART)

464.625	F1 – fire/safety	464.750	F2 – pace car	464.550	F3 – unknown
464.500	unknown				

International Motor Sports Association

154.570	usage unknown

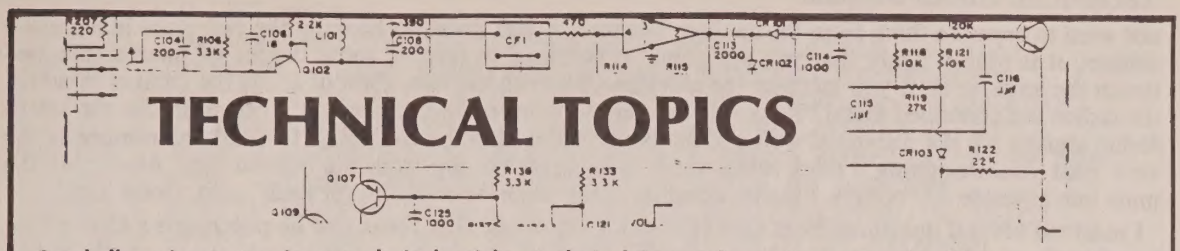
National Hot Rod Association

154.570	F1 – administration	154.540	F2 – staging, security
151.625	F3 – Safety/tech crews		

NASCAR

464.500	F1–Road ch. race/scoring	464.775	F2–unknown
464.900	F3–Road ch. race/scoring	469.500	F4–track judges
462.025	F5–Unknown	467.025	F6–Unknown use
467.800	Scoring		

As always, corrections and updates are eagerly awaited. Also, keep those drivers frequencies coming. Next month we'll list frequencies for other summer sports, including a confirmed list of frequencies in use at LPGA tournaments from a close examination (read that: taking one apart) of an LPGA radio!



TECHNICAL TOPICS

Send all equipment reviews, technical articles, technical tips, and questions on such subjects as receivers, antennas, preamps, accessory equipment, repeaters, links, tones, scramblers, non-voice data transmissions to:

Alexander Woollcott (GA-080), 102 Lacey Lane, Winder, GA 30680

Hubert (KS046) sent by way of our General Editor the following tips on how to trick your AR-900 into receiving out of band frequencies. Hubert states that the following steps may have to be done three or four times before the radio will take it. Hubert did not give us much detail, so the steps are not likely to make any sense to you unless you own an AR-900. Here they are:

1. Push the Program Search button.
2. Choose frequency bank B.
3. Program in 830.000 for the low side.
4. Program in 950.000 for the high side.
5. Program in the mode of your choice (AM, FM).
6. Program in your desired frequency search increment.
7. Push search.
8. Select frequency bank A, then bank C, then D.

This process should permit you to get continuous search range from 504.800 to 830.000. The search range will be somewhat different for each of the five frequency banks. Hubert, please let me know if I have left something off on this technique and I will print a correction in next month's newsletter.

I received a letter from another Kansas member, Tracy (KS-053). Tracy had a number of questions and comments. First, Tracy noted that he currently has a Regency K-100 and wants to purchase a better receiver. He inquires whether the AOR AR2515 is a good choice. The AR-2515 is one of the more exciting radios to come onto the market in recent years. The unit provides uninterrupted frequency coverage from 5 to 1500 MHz with almost 2,000 memory channels. Unlike the AR2002, scan speed in the AR2515 is 36 channels per second. Published sensitivity figures for narrow band FM are excellent (typically being between .3 and .4 microvolts). I do not know anything about the ability of the AR2515 to resist intermodulation interference. I note that you live in a fairly highly populated area and so the interference potential is quite possible. Be aware that this little radio does it all -- from shortwave to microwave (well, almost). I would highly recommend that you purchase the accessory BFO module, which will enable you to receive single-sideband voice reception. You can purchase the AR2515 from Grove Enterprises for $649, which is somewhat less than the nationally advertised list price.

Tracy also inquires whether the Channel Master 5094 is still available. This antenna is available through some television antenna dealers. You may have to look for a while, but you should find it. According to the Grove Enterprises buyers guide, the Channel Master 5094 has been redesigned to receive frequencies as high as 960 MHz. Apparently the new model number is 5094A. The 5094 is a rather funny looking antenna, but numerous tests show that it performs better than any other omnidirectional, no-gain communications antenna. In short, I highly recommend it. Keep in mind, however, that the Channel Master 5094 will not receive shortwave frequencies. If you are purchasing the AR-2515, I assume you are interested in the shortwave frequencies. If not, you may want to consider a less expensive radio. Check and see whether the 2515 has multiple antenna terminals on the back of the unit. It may be that you could use the Channel Master 5094 for VHF and UHF reception and attach a separate shortwave antenna for HF monitoring. The Channel Master 5094 comes with about 50 feet of cable with a Motorola plug attached to the end. Obviously, don't even think about using a Motorola plug. What you will need to do is to cut off that plug and attach a PL-259 connector and with a BNC adapter you should be able to connect the cable to the antenna terminal on the AR-2515.

Tracy notes that he has an all band Radio Shack antenna and wonders whether he should throw it away once he has purchased a new antenna. I am something of a pack rat myself, so I hate to throw anything of any conceivable use away. Why not save the Radio Shack antenna, in the event that you want to use your old Regency Radio with an outside antenna or in the event you purchase a radio in addition to the AR-2515?

Finally, Tracy notes that he has a Hamtronics SA-1 Scanner Amplifilter. Tracy says that he does not use it because the unit "likes to listen to pagers." What you are telling me is that the amplifilter is overloaded by intermodulation interference, a common problem plaguing the use of pre-amplifiers in near urban and suburban areas. I thought that the SA-1 had adjustable gain, which would seem to allow you to minimize the interference. Please let me know more about the amplifilter. It has been around for years and other Hamtronics preamplifiers, (particularly single band units) are excellent performers. Thanks for the letter, Tracy. Good luck and keep me posted on what you purchase.

Richard, (CANA-138), writes noting that he has two 20 channel programmable scanners built into an old radio cabinet. Richard states that the two scanners sit on top of one another and are connected to a single antenna. Not surprisingly, Richard reports that the two radios interfere with each other. When the top unit stops on a transmission, you can hear a ticking noise as the bottom one keeps scanning the channels. Richard wants to know if there is some kind of shielding he can put between them as he does

not want to separate them from the cabinet. Richard, if you insist on keeping the two units in the same cabinet, it is highly likely that you are going to continue to receive some degree of interference between the units, even if you increase the shielding between the two. First of all, is the cabinet in which the radios are contained metal? If so, this is likely to worsen the interference problem in that the interfering signals are not disbursed well and are contained within the cabinetry. I would recommend at the very least your designing a thick metal sheet to separate the top from the bottom unit. Also, plug the units into separate AC outlets. Finally, consider using separate antennas for each radio. Good luck!

I received several questions from Guy (CA--). First of all, Guy notes that he purchased a Grove Enterprises Preamplifier, which Guy states works very well except that some signals are much clearer on their image frequencies than on the actual frequency. He wonders why this is the case. My suspicion, Guy, is that the primary signal is distorted because of the high amplification in the pre-amp. I would be surprised if weaker signals even produced images. Guy wants to emphasize the high quality of the Grove Preamplifier overall, noting that the pre-amp enabled him to pick up signals that he did not even know existed.

Guy goes on to state that he has been receiving a great deal of skip from the east coast but has been unable to clearly receive most of the mobile units. Mobile skip is even more erratic than skip from high powered base stations, making it very difficult to monitor. In last month's newsletter, I reported having a wonderful afternoon of strong skip from the San Francisco Bay area. I was only able to pick up the mobile transmissions when the base transmissions were nearly an S-9 on my ICOM R-7000 signal strength meter. In short, Guy, there is little that you can do to improve your reception of mobile skip, other than simply using the best possible antenna you can. You note that you are unable to put up an outdoor antenna where you are located. Therefore, I strongly recommend your purchasing a top quality antenna like the ICOM discone or the Grove Scanner beam. Set these up in a closet. The latter choice is a directional antenna, but I have found that using a directional antenna inside a building actually helps reduce intermodulation interference and gives generally impressive results.

Guy also notes that he is planning to use his scanner in his car. He wonders whether the car's AM-FM antenna will provide adequate reception. Your car's built-in antenna would provide, at best, adequate reception but would doubtfully produce good reception. The reason for this is that the car's antenna is cut at a length which is closer to a quarter wavelength for the commercial FM band, but which is much longer than the quarter wavelengths for the VHF high band and UHF frequencies. It is also too short to operate effectively as a quarter wavelength for the VHF low band. The Grove Enterprises mobile antenna would seem to be an excellent choice. You asked whether you could somehow mount it and use it inside your car. While I am curious why you would want to use the antenna inside the car, I will simply answer your question. Yes, you can use the antenna inside the car, but its performance will be severely compromised. That is because the metal body of the car will act as a shield, preventing radio signals to be easily intercepted by the antenna. The built-in AM/FM car antenna will perform better than using the Grove Antenna inside the car.

Wayne (IL-391) states that he recently purchased a Pro-2004 from Radio Shack and would now like to modify it. Wayne would like to increase the memory from 300 to 400 channels, restore cellular coverage and increase the scan speed to 30 channels per second. He also wants to know whether the 240 MHz band can be restored. Wayne, I will have a response for you in next month's newsletter. I have to review the latest information on modifications. The techniques change because the circuit boards vary somewhat depending on the production line of the particular unit. Thanks for your patience. I should have an answer for you in the next column.

RCMA NEW MEMBERS LIST

Please Note: New members who leave blank the `permission to print full name and address' section of the RCMA membership application form will see only their first name in the above list. This is true also for new members whose request for membership was not via an application form. RCMA will publish a member's name only if we have written permission on file.—Editor

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AZ  107 - ROY  --LAST NAME AND ADDRESS WITHELD BY REQUEST
AZ  108 - ROBERT  --LAST NAME AND ADDRESS WITHELD BY REQUEST
CAAL064 - JAMES E PORTEOUS;1819 BRENTWOOD RD;OAKLAND;CA;94602
CABU009 - CHUCK  --LAST NAME AND ADDRESS WITHELD BY REQUEST
CACC048 - ROGER  --LAST NAME AND ADDRESS WITHELD BY REQUEST
CAHU010 - DALEL  --LAST NAME AND ADDRESS WITHELD BY REQUEST
CALA811 - PERRY  --LAST NAME AND ADDRESS WITHELD BY REQUEST
CALA812 - WILLIAM FARLEY;8070 SELMA AVE;LOS ANGELES;CA;90046
CALA813 - NICKLAS AKERS;2541 MIDVALE AVE;LOS ANGELES;CA;90064
CALA814 - JAMES HEALEY;10518 PARMALEE AVE;LOS ANGELES;CA;90002
CALA815 - PAUL ANTHONY GARCIA;167 W 224TH PL;CARSON;CA;90745
CALA816 - STEPHEN PRICE;740 W EL SEGUNDO BLVD #111;GARDENA;CA;90247
CALA817 - JACK KOONAN;9707 CISCO ST;LOS ANGELES;CA;90034
CALA818 - MARK PERALTA;1956 HOLLY OAK DR;MONTEREY PARK;CA;91754
CAMR007 - TED RENCH;2875 GREEN ST;MERCED;CA;95340
CANA145 - EARL  --LAST NAME AND ADDRESS WITHELD BY REQUEST
CAOR393 - MARY  --LAST NAME AND ADDRESS WITHELD BY REQUEST
CARI078 - TIMOTHY SLUSARCZYK;2025 RIVER RAD;PERRIS;CA;92370
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CARI079 - BARBARA WELLIN;3550 ANDOVER;CORONA;CA;91719
CASB088 - GEORGE --LAST NAME AND ADDRESS WITHELD BY REQUEST
CASD110 - BOB SALNAVE;4317 1/2B DAWES ST;SAN DIEGO;CA;92109-4102
CASD111 - RICHARD PLEASANT;4488 ESTRELLA AVE;SAN DIEGO;CA;92115
CASR033 - JOHN B MACHADO;376 MIRAMONTE AVE;SANTA BARBARA;CA;93108
CAST006 - ROB --LAST NAME AND ADDRESS WITHELD BY REQUEST
CAST007 - STEVEN CHOATE;5650-B N PERSHING AVE;STOCKTON;CA;95307
CASZ018 - GRANT --LAST NAME AND ADDRESS WITHELD BY REQUEST
CASZ019 - BILL A VANHOUTEN;121 SANTA CRUZ AVE MS/904;APTOS;CA;95003-4420
CAVE039 - WAYNE W POWELL;44 DELOZ DR;CAMARILLO;CA;93012
CT 138 - DAVID M STOCKWELL;266 NEPTUNE DR;GROTON;CT;06340
CT 139 - JOE KUSTERER;196 ROUTE 39;NEW FAIRFIELD;CT;06812
FL 311 - HAROLD E --LAST NAME AND ADDRESS WITHELD BY REQUEST
FL 312 - GARY W SCHULTZ;1928 MILE STRETCH RD;HOLIDAY;FL;34690
FL 313 - RICHARD SGRIGNOLI;1616-A TRUESDELL CT;KEY WEST;FL;33040-4420
FL 314 - JOHN PRATH;1525 NW 12TH AVE;FT LAUDERDALE;FL;33311
IA 069 - KENNETH R --LAST NAME AND ADDRESS WITHELD BY REQUEST
IA 070 - WILLARD SKINNER;RT 2 BOX 24;SHENANDOAH;IA;51601
ID 022 - LEON CLOUD;6681 HWY 95;FRUITLAND;ID;83619
IL 449 - JOHN --LAST NAME AND ADDRESS WITHELD BY REQUEST
IL 450 - PHILIP A --LAST NAME AND ADDRESS WITHELD BY REQUEST
IL 451 - ROBERT J SCHMIDT;4657 N KASSON AVE;CHICAGO;IL;60630-4231
IL 452 - JOSEPH SEROCKI;35144 SHERIDAN DR;INGLESIDE;IL;60041
IL 453 - JOHN DUERKOP;8310 HOWE RD;RINGWOOD;IL;60072
KS 057 - ROBERT --LAST NAME AND ADDRESS WITHELD BY REQUEST
MA 236 - CHARLES BALLANTINE;E7 SCOTTY HOLLOW DRIVE;
NORTH CHELMSFORD;MA;01863
MALT002 - JOSEPH --LAST NAME AND ADDRESS WITHELD BY REQUEST
MD 166 - ANDREW J JURCAK JR;3464 MADDOX CT;WALDORF;MD;20602-1710
MI 229 - JOHN R --LAST NAME AND ADDRESS WITHELD BY REQUEST
MI 230 - CHARLES --LAST NAME AND ADDRESS WITHELD BY REQUEST
MI 231 - GREGORY R --LAST NAME AND ADDRESS WITHELD BY REQUEST
MI 232 - ROBERT WALKER;30900 STONE RIDGE DRIVE #7314;WIXOM;MI;48096
MI 233 - CHARLES BROWN;900 EAST BLVD SOUTH #K-247;PONTIAC;MI;48053
NC 109 - CLAY CLARK;P O BOX 1372;BRYSON CITY;NC;28713
NC 110 - LARRY D JONES;1308 GRANTLAND PL;GREENSBORO;NC;27410
NJ 312 - KENNETH L --LAST NAME AND ADDRESS WITHELD BY REQUEST
NJ 313 - JOHN P COREA;3 PRIMROSE LANE;BRICK;NJ;08723
NJ 314 - JOHN RAFTER;P O BOX 175;GREEN VILLAGE;NJ;07935-0175
NV 029 - WILLIAM R --LAST NAME AND ADDRESS WITHELD BY REQUEST
NY 483 - T A BOUCHARD;153 AVONDALE RD;ROCHESTER;NY;14622
PA 300 - DENNIS --LAST NAME AND ADDRESS WITHELD BY REQUEST
PA 301 - JIM --LAST NAME AND ADDRESS WITHELD BY REQUEST
SC 047 - WATTS FERGUSON;P O BOX 407;CLINTON;SC;29325
TX 264 - JERRY L --LAST NAME AND ADDRESS WITHELD BY REQUEST
TX 265 - BRUCE D --LAST NAME AND ADDRESS WITHELD BY REQUEST
TX 266 - BILLY J BREWER;10201 LEATHERWOOD DR;FT WORTH;TX;76108
TX 267 - ARTHUR JANSEN;922 W GREENS RD;HOUSTON;TX;77067
TX 268 - DOUGLAS W CUDE;418 E SIMMONS AVE;WEATHERFORD;TX;76086
VA 169 - KEN FOWLER;3511 PERRY ST;FAIRFAX;VA;22030
VT 009 - EARL BLAIR;P O BOX 931;NEWPORT;VT;05855
WA 111 - GENE --LAST NAME AND ADDRESS WITHELD BY REQUEST
WA 112 - PETER --LAST NAME AND ADDRESS WITHELD BY REQUEST
WA 113 - MARK A SILVER;P O BOX 15731;SEATTLE;WA;98115-0731
WI 119 - ROBERT --LAST NAME AND ADDRESS WITHELD BY REQUEST
WI 120 - RICHARD --LAST NAME AND ADDRESS WITHELD BY REQUEST
WV 026 - RUDY O'DELL;183 WOODLAND FOREST;WINFIELD;WV;25213

Want to Get Your Newsletter 1st Class?

Getting your RCMA Newsletter mailed 1st class may be your answer if you have consistently slow or erratic service with 3rd class mailing. 1st class costs a lot more—that's why we use 3rd to begin with—but if you can spend the greater amount, here's how:

Check your mailing label for the number of months left on your current membership. (If it says 10/90, for example and you are reading this in January, then there are 9 months remaining.) Multiply the number of months by the amount of 88 cents. Make out a check or M.O. for that amount to RCMA, Inc. Send to: RCMA General Manager, P. O. Box 542, Silverado, CA 92676. Mail with enough time to allow delivery *before* the end of the month.

The Radio Communications Monitoring Association is a radio club for persons interested in listening to two-way communications. RCMA was founded in May 1975 and is a Full Member of the Association of North American Radio Clubs (ANARC).

The goals of RCMA are:

1) To provide a fraternity for those who seriously pursue the hobby of monitor radio listening.
2) To try to be knowledgeable about two-way radio systems and operations.
3) To promote an understanding of the legal and ethical uses of monitor receivers.
4) To share information with and help other monitor radio listeners.
5) To try to understand and improve receivers, antenna systems and related equipment.
6) To offer suggestions and formal recommendations to manufacturers of monitor receivers and to manufacturers of other products related to the hobby.
7) To offer suggestions for and encourage the organizing and conducting of RCMA meetings and tours for groups in any geographic area.
8) To encourage and to facilitate contact between members.
9) To publish a regular club newsletter devoted to the hobby.

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